

# **COGNITIVE STYLES OF CHILDREN WITH AND WITHOUT RESIDUAL SIGHT AND THEIR ACHIEVEMENT IN DIFFERENT AREAS**

## **A PROJECT REPORT**

Submitted to  
University Grants Commission  
New Delhi

*by*

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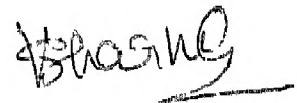
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## DECLARATION

I hereby certify that the work which is being presented in the report of the Project entitled "COGNITIVE STYLES OF CHILDREN WITH AND WITHOUT RESIDUAL SIGHT AND THEIR ACHIEVEMENT IN DIFFERENT AREAS" submitted to the University Grants Commission, Bhadurshah Zafar Marg, New Delhi, is an authentic record of my own work under the guidance and supervision of Dr. G.L. Arora, Professor and Head, Department of Teacher Education and Extension, National Council of Educational Research and Training (NCERT) Sri Aurobindo Marg, New Delhi-16.

The matter presented in this Research report has not been submitted by me for the award of any other degree



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Date 30.4.1999



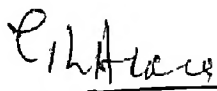
## CERTIFICATE

I have the pleasure in certifying that Dr. Vimlesh Sharma has worked under my supervision and guidance for her research project entitled - "COGNITIVE STYLES OF CHILDREN WITH AND WITHOUT RESIDUAL SIGHT AND THEIR ACHIEVEMENT IN DIFFERENT AREAS" as full time Research Associate under UGC Scheme

The Project on which the present report is based was supported financially by the University Grants Commission, however, the responsibility for the facts stated herein, the opinions and views expressed and the conclusion drawn is entirely that of the investigator

The whole work is original

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[VIMLESH SHARMA]



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## CHAPTER - I

# INTRODUCTION

A sizeable section of population in any society is unfortunately afflicted with some kind of disability-Mental or Physical. The majority of so called 'normal population' do not hold, by and large, a very positive attitude towards the disabled individuals

There has been a prolonged struggle throughout history for changing attitude of normal individuals towards disability. At one point of time in human history, it was considered a disgrace in certain societies to have a disabled child who could not be strong enough to become a warrior. Therefore, such societies had no place for disabled people. Such attitudes prevailed for many centuries till the time of the crusades, the great religious wars, during 1,000 - 1,200 A.D. that any disability became a symbol of punishment. It is a historical fact that 300 Roman soldiers, when captured in a battle during the Roman Crusades were blinded or partially sighted. Some people still think that a disabled child was punished by God because he was sinful or the parents of disabled children are punished by God, because they might have committed some sin in life. So the idea of sin, and misbehaviour and the idea that God retaliates and inflicts punishment, became associated with the public's attitude towards disability.



### **National Policy on Education and Education of the Disabled:**

Two recent developments have further influenced educational provision for the disabled in India. The Education Commission 1964-66 was underlined the neglect of their education in quantitative as well as qualitative terms. The Commission stated, "Not more than 1% of the mentally handicapped and 5% of the deaf and blind are receiving some education". Obviously the coverage is miserably low when compared to the coverage of even other weaker sections. It may be due to the fact that education of the disabled has been considered as a social welfare activity and not an educational enterprise. The commission therefore, recommended a qualitative change in the conceptualisation of educational provision for the disabled. Education of the disabled, according to the commission, should be developed as an integral part of the educational system (MHRD, 1985)

In the National Policy on Education 1986, education of the disabled has been emphasised in the context of providing equal educational opportunities for all. This section dealt with special groups of children which need special efforts for educational development as they are educationally vulnerable. The objective of education of the disabled is to integrate the physically handicapped (including the visually disabled) with the general community as equal partners, to prepare them for normal growth and enable them to face life with courage and confidence (NPE 1986). The measures suggested to realise this cherished goal are -



to teach the child how to study, how to acquire study skills, how to read, how to write, how to count, how to follow directions etc. Teacher should have faith in the capabilities of the child despite his/her loss of vision. Being a part of the community, he/she may need to modify his/her own reactions and attitudes. The parents of such children need counselling when required. Sensitisation of the peers and the community is required to correct stereotype behaviours and to build an encouraging climate for the child. The requirements are many and varying in view of the needs of the child, and the only asset to the teacher is his ingenuity, with which he may be able to overcome prejudices, unwarranted beliefs and behaviours to help the child with special needs to grow as a normal person as far as his/her potentialities permit.

### Disability Act 1995

Some of the major recommendations of the recent Disability act 1995 for the educational development of the disabled children are as follows.-

- 1 Research concerning the cause of occurrence of disabilities
- 2 Promote various methods of preventing disabilities
- 3 Screen all the children at least once in a year for the purpose of identifying all-risk cases
4. Provide facilities for training to the staff at the primary health centres
- 5 Sponsor awareness campaigns and disseminate information for general health, hygiene and sanitation.



- 6 Take measures for pre-natal, perinatal and postnatal care of mother and child
- 7 Create awareness amongst the masses through TV, radio and other mass media regarding the causes of disabilities
- 8 Ensure that every child with a disability has access to free education in an appropriate environment till he/she attains the age of eighteen years
- 9 Endeavor to promote the integration of students with disabilities in the normal schools.
- 10 Promote setting up of special schools on government and private sector for those in need of special education in such a manner that children with disabilities living in any part of the country have access to such schools
- 11 Endeavor to equip the special schools for children with disabilities with vocational training facilities.
12. Conduct part time classes for children with disabilities who have completed education up to class fifth but could not continue their studies on a whole time basis
- 13 Conduct special part time classes for providing functional literacy to children in the age group of 16 and above
- 14 Impart nonformal education by utilizing the available manpower in rural areas after giving them appropriate orientation
- 15 Impart education through open schools or open universities
- 16 Conduct class and discussion through interactive electronic or other media.





- 17 Provide every child with disability free of cost special books and equipments needed for his/her education
- 18 Provide transport facilities to the children with disabilities.
- 19 Removal architectural barriers from schools, college or other institution imparting vocational and professional training
- 20 Supply books, uniforms and other materials to children with disabilities attending school
- 21 Grants of scholarship to student with disabilities.
- 22 Set up of appropriate form for the placement of children with disabilities
- 23 Make suitable modification in the examination systems
- 24 Restructure curriculum for the benefit of children with disabilities
- 25 Restructure curriculum for the benefit of children with hearing impairment to facilitate them to take only one language as part of their curriculum
26. Ensure that all educational institutions provide essential facilities to blind students and students with low vision

### **Visual Impairment**

In the context of visual anomalies, children are often divided into two categories -

(1) the blind, whose absence of vision is so pronounced that they cannot be educated through visual methods and hence, have to be educated through channels other than vision, and



(2) the partially sighted or children with residual sight who are able to utilise vision to some extent in acquiring educational skills

The partially sighted children are those children who have defective vision even after correction, therefore, they need to be provided with visual materials and special methods of instructions. One important factor which distinguishes partial sight from blindness is the fact that while a partially visually handicapped child can utilise vision as an important channel of learning, the blind must rely on other approaches, primarily auditory and touch.

#### **Identification of Children with Residual sight**

Generally three methods are adopted to identify Residual sighted children.

- (1) Ophthalmological examination,
- (2) Visual screening and
- (3) Classroom observation

The most authentic method for identifying Residual sighted children is ophthalmological examination followed by medical check-up after brief and specified intervals throughout their school life of children. If ophthalmological examination is not possible, visual screening may be undertaken by the Health officers. Sometimes classroom observation also proves useful for identifying the partially sighted children. One of the most important things that a low vision child should learn in school is to



accept the responsibility of seeking help whenever needed rather than waiting for someone else to offer help. To assess the quality of work and to maintain discipline, the teacher best helps the low vision child by using the same standards that are used with other children.

### **Children With Residual Sight in India**

India has a large population of people with visual disabilities. But various surveys conducted in this regard have yielded different estimates. The National sample survey of India in 1991 estimated the number of blind persons at about 4 million. But a study conducted two years earlier by Dr Madan Mohan and World Health Organisation estimated the number of blind persons at 12 Million which is the figure now officially quoted by the Ministry of Health. The same study estimated the number of persons with Residual sight at 29.56 million. Thus in a population of 900 million, about 40 million people constituting about 3.5% of the population suffer from some degree of visual impairment. The following Table 1.1 shows major causes of visual impairment alongwith their secondary conditions and functional problems.



Table 1.1.

Causes of Visual Impairment alongwith secondary Conditions and functional Problems.

Pathology	Secondary Conditions	Prognosis	Common Functional Problems
Albinism	Nystagmus	Non-Progressive	Glare/Photophobia Nystagmus congenitally poor visual acuity
Aniridia Cataracts	Glaucoma, on extent Nystagmus, displaced lens, corneal opacification Glaucoma	Dependent of under development	Poor light adaptation Glare/photophobia
Aphakia		Non-Progressive	Peripheral field distortions loss of accommodation poor depth perception
Cataracts	Glaucoma	Progressive to total opacification	Scotomas Glare/photophobia constricted pupil.
Nystagmus	Usually is an accompanying condition	Non-Progressive	Possible fixation difficulty Reduced acuity
Diabetic Retinopathy	Glaucoma Retina/ detachmer+ cataracts	Progressive	Gradual loss of vision fluctuating vision
Glaucoma	-	Progressive and non-progressive	Constricted visual fields Night blindness Light adaptation
Glare	-	-	Medication.
Hemianopsia	-	Non-Progressive	Loss of half of visual field reading.
Macular Acgeneration	Cataracts	Progressive and non-progressive forms	Loss of central vision scotomas
Optic Atrophy Pathological	- Retinal detachments, cataracts, Macular Hemorrhaging	Stable Progressive	Scotomas Peripheral field distortions
Retinitis Pigmentosa	Cataracts Glaucoma	Progressive	Constricted visual fields Glare/photophobia, Night Blindness.





A multistate study conducted by a British team in 1994 estimated that India had about 200 thousand children of school age with severe impairment or blindness. The study indicated the following causes

- 1 Staphyloma, scar and Phthisis bulbi attributable to Vitamin 'A' deficiency in 18.6% of children
- 2 Retinal dystrophies and albinism in 19.3% cases
- 3 Micro-ophthalmos, anophthalmos and Coloboma in 20.7% cases and
- 4 Cataract uncorrected aphakia and amblyopia in 12.2% children

It is evident that different surveys have had a different focus. There are, therefore differences not in estimates of prevalence but also in the identification of causes

Traditionally, blind and partially sighted children were educated together using Braille as the main medium of instruction for both. There was a wide-spread belief that using residual vision, could damage it, but experience and research in the past few decades has confirmed the view that its use improves rather than damages residual vision.

A development of far reaching importance is the distinction now made between visual acuity and visual efficiency. It is observed that in many cases persons with fairly low visual acuity and other limitations can function more effectively after they are providing training in visual efficiency.



The emergence of a wide range of visual aids and the techniques of producing print material in large print type have further improved the prospects of people with low vision. For the first time in India's history a comprehensive law on Disability has been adopted by the Union Parliament. This act provides a statutory definition of low vision as follows -

"A person with low vision is one who has impairment of visual function, given after treatment and/or standard refractive correction and has a visual acuity of less than 6/18 to light perception or a visual field of less than 10 degrees from the point of fixation, but who uses, or is potentially able to use, vision for the planning and or execution of a task "

The act promises access to education for all children with disabilities between 3 and 18 years of age. Currently India has very few low vision rehabilitation services.

We are beset with a number of problems in this area, India does not have the technology for producing aspheric lenses in acrylic which minimizes distortions. The aids available here are largely in glass and prone to severe distortions. However, an indigenous close circuit TV has been developed with a capacity for 30 times magnification. But the cost is prohibitive, at least for an average individual.

The education of children with residual sight requires considerable



technological support, even with the best low vision aids, reading is likely to be slow, classrooms have to be specially adapted making it difficult for every ordinary school to provide the needed support services

The following considerations are important in developing an education programme for children with residual sight.

**1. Training in visual efficiency.**

The visual performances of children with residual sight is not at the same level as that of sighted children. However, training in visual efficiency can improve performance

**2. Reading Readiness.**

- Minimising the effort in distinguishing the details of reading material
- Management of lighting according to individual needs
- Adjustment as size or type, spacing, quality of paper and use of illustrations combining print and pictures, self pacing of learning

**3. Development of listening skills.**

- Simple sound identification
- Tonal and volume discrimination
- Discriminating similarities and differences in sounds
- Extending attention span and listening for factual details



Despite training in visual efficiency, reading readiness and listening skills, our dependence on technology in educating children with residual sight is substantial. Fortunately, new devices particularly in the field of electronics are coming to our aid

- 1 Interactive communication device.
- 2 Interactive Classroom Television System
- 3 Variety of magnifiers like illumination, Hand-held devices, Stand magnification, Head borne devices, and Electronic devices

To begin with residual sight children's education or rehabilitation programme may be located in urban centres, as even the better public school may not be in a position to provide the needed support services

The Education Commission (1966) had recommended establishment of special schools for more severely disabled children. Although children with residual sight can not be regarded as severely disabled, the support services needed warrant their education in a special environment

Some research suggests that the prevalence of learning difficulties among low vision children is much higher than in a cross section of a population of sighted children. Thus, it may be necessary not only to deal with the special problems as low vision, but also with some basic problems of dyslexia, dysgraphia and other learning difficulties. A number of strategies for coping with these problems are being developed. It will be necessary to use a combination of strategies alongwith a multi sensory





approach to cope with the educational problems of low vision children

### Concept of cognitive style

Cognitive style, a psychological construct, characterizes individual differences in styles of perceiving, remembering, thinking and judging. The term cognitive style refers to the characteristic way in which individuals conceptually organise the environment. Cognitive style was viewed by Kogan, Moss and Sigel (1963) as "stable individual preference in mode of perceptual organization and conceptual categorization of the external environment".

Cognitive style as defined by Witkin (1971) is the characteristic self-consistent mode of functioning which individuals show in their perceptual and intellectual activities. These cognitive styles are manifestations in the cognitive sphere of still broader dimension of personal functioning which cuts across diverse psychological areas.

There are different kinds of cognitive styles like sharpers and Levelers, Narrows and Extensive scanners, Psychological differentiation, Tolerance/Intolerances for ambiguity, Field dependence and Independence for ambiguity, cognitive Consistency and Locus of control (Forgues and Shulman 1979). The field dependent and independent conceptualization of Witkin and his colleagues has generated, by far, the greatest amount of research. This research and theorizing has extended the original perceptual style concept into cognitive and social domains.



The extended conceptualization implicates field dependence and independence as aspects of more generalised individual difference dimension which is defined as one extreme by global (non-analytic) approach to the field and at the other extreme by a highly articulated analytic approach to the perceptual or conceptual field

Witkin noted the individuals characteristic way of perceiving was consistent from one situation to another, that it was not easily altered, and that is in a way stable over a period of time. It has been demonstrated that people who are field dependent in the area perceptual situation tend to be field independent in their perceptual and problem solving situation as well. Individuals differ very much in all aspects of their personality and thus various methods and techniques have been developed by researchers, educationists and psychologists, to identify individual differences. Identifying student's cognitive style is one such method which may be used for individual instruction.

Cognitive style may be referred specially to a person's characteristic pattern of behaviour in a particular learning field. The determination of functional levels and specific deficits provides the essential information in deciding 'what' a child should be taught and deciding 'how' to teach him effectively requires a different data base.

A number of psychologists, educationists and researchers have defined the term 'Cognitive style' as a potential individual difference.



that may be used by the teacher to enhance student's learning. The term Cognitive style refers to a way or approach, a student follows on his course of learning. Robeck (1973) has defined it as the individual's tendency to function intellectually in a way he has succeeded. Laycock (1978) describes cognitive style as an individual's characteristic way of responding to certain variables in the instructional environment. However, to state it more briefly a student's cognitive style is the way with which he learns best. Sigel and Coop (1974) have viewed Cognitive style as an integral concept that bridges cognitive dimension of individuals personality. Gibson (1976) on the other hand, argues that cognitive style and learning style are synonymous and defines cognitive style as the different ways in which people process information in the course of learning. Asubel (1966), Dececco (1974), Messick (1969) and Kogan. Moss and Seigal (1963) also felt that learning style and cognitive style are synonymous which include individual preference in both perceptual organisation and concept categorization that is perceiving, thinking, remembering and solving problem.

So cognitive style represents patterns of individual variation in the mode of perceiving, remembering and thinking which is to be reflected with consistency in a wide range of learning and social situations.

#### Definitions of cognitive style

Kogan, Moss and Sigel (1963p 74) referred to cognitive style as under -



"Among children of adequate intelligence there are those who characteristically analyse and differentiate the stimulus field, applying labels to sub-elements of the whole, others tend to categorise a relatively undifferentiated stimulus. Some children are splitters, other are lumpers "

Messick (1976) defined cognitive styles in terms of consistent patterns of "organizing and processing information. Zojnoc (1968) similarly maintained that cognitive structures mediate between environmental input and the organism's output. He added that cognitive structures organise behaviour as well as input.

Coop and Sigel (1971) used the term cognitive style "to denote consistencies on individual modes of functioning on a variety of behaviour situations". This definition is, as Coop and Sigel pointed out, similar to the use of the term 'style' by Gordon Allport (1937) to describe consistencies of behaviour.

Goldstein and Blackman (1978) define cognitive style as a hypothetical construct that has been developed to explain the process of mediation between stimulus and response. Here the term cognitive style refers to the characteristic ways in which individuals conceptually organise the environment.

The above discussion shows that cognitive style has been viewed from different angles.





Table 1.2.

Views of Cognitive style

Style type	Integrated A + B	Style A	Style B	Under- developed	Author
Perceiving	-	Field- dependent	Field- independent	-	Witkin
	Fast, accurate	Impulsive	Reflective	Slow, inaccurate	Kagan
Information Processing	-	Broad	Narrow	-	Wallach Kagan
Concept Thinking	-	Relational	Analytic	Descriptive	
	Both strong	Divergers (imaginative)	Convergers (Logical)	Both weak	Hudson
Learning Personality	Versatile Integrated	Holist Expressive	Serialist Self- contained	Rote -	Pask Hudson Entwistle and Morison
		Emotional Cognitively Complex	Inhibited, Practical		

Source - International Encyclopaedia of Education

Adopted from Entwistle (1981) P 218

Witkin et al (1971) pp. 14-16 has summarized in general some essential characteristics of cognitive style. They are as follows

1. Cognitive styles are concerned with the form rather than the content of cognitive activity. They refer to individual differences in how we perceive, think, solve problems, learn, relate to others, etc.
2. Cognitive styles are pervasive dimensions. They cut across the boundaries traditionally used in compartmentalizing the human psyche and so help restore the psyche to its proper



status as a holistic entity. Reflecting their pervasiveness, cognitive styles carry a message about what we traditionally call 'personalities'. So it is a feature of personality and not only of cognition in the narrow sense.

- 3 Cognitive styles are stable over time. This does not imply that they are unchangeable. Indeed, some may easily be altered. In the normal course of events, however, we can predict with some accuracy that a person who has a particular style one day will have the same style the next day, month, and perhaps even years later. This stability makes cognitive styles useful particularly in long range guidance and counselling.
- 4 With regard to value judgment, cognitive styles are bipolar. This bipolarity makes it less threatening and therefore easier to communicate information about an individual's cognitive style directly to him than it is to convey some information about his abilities, as for example, telling him he has a low IQ.

A brief description of different cognitive styles identified by psychologists and researchers is presented below -

#### 1. Flexibility Vs non-Flexibility

The students who are not satisfied with traditionally accepted



solution to a learning problem and always try to arrive at unique responses and solutions are said to be having flexible cognitive style. On the other hand, students who are satisfied with traditionally accepted response to a learning situation are stated to be having non-flexible cognitive style.

## **2. Individualistic Vs Non Individualistic**

Students who are self-centred or independent on their learning possess individualistic cognitive style. On the other hand, students who require help or assistance possess non-individualistic cognitive style.

## **3. Modality preference - Aural Vs Visual**

This refers to an ability to learn and retain information more effectively when certain channels of communication are employed, students differ with respect to how much they rely on 'eyes' or 'ears' for learning. Some students prefer those subjects in which some type of visual aids are used and they have to perform or construct something. These students are said to be having aural cognitive style. On the other hand, students having aural cognitive style prefer those teachers and subjects which require them only to listen. They remember best only when they themselves speak it or hear it from someone.

## **4. Field independent Vs Field dependent**

Learning is influenced by the structuring of learning situation. This type of learning is called field dependent but there are students who grow in their learning at their own and do not care for the



structurisation of learning task provided to them. This type of learning is called field-independent

#### **5. Short attention span Vs Long attention span**

Attention span does influence learning of students as they vary in their capacity to concentrate for a short or long duration of time in their learning tasks. When a task is given some students work on till it is completed. They can continue or sit long without getting bored or without taking some type of intake in between. Such students are stated to be having long attention span cognitive style. On the other hand, some other students are stated to be having short attention span cognitive style as they experience difficulty in concentrating for a long time during their learning. They lose interest, get irritated and get involved in social activities rather than completing their learning task.

#### **6. Motivation centred Vs Motivation non-centred**

Motivation centred students are eager to learn, they should be told exactly what they are required to do, what resources are available to them, how to get help if they need, if and how they will be expected to demonstrate that they have learnt what they were assigned. Students who are motivation non-centred rarely succeed in life. They do not work hard and blame others for their failures and always feel disappointed.

#### **7. Environment oriented Vs Environment free**

There are some individuals who are quite sensitive to physical





environment features, sound levels, conversations, street noise and other distractors and prefer to learn in a quiet congenial environment. They have been termed as having environment oriented cognitive styles. On the other hand, there are students who do not bother for such type of disturbances and can concentrate on their learning task undisturbed. For example, music does not affect their concentration.

#### **8. Responsibility Vs Irresponsibility**

Responsible students are those who obey their teachers, do their work in time, help school authorities in maintaining discipline and the like. Irresponsible students, on the other hand, try to create disturbance in classroom, neither do work themselves in the classroom nor let others do their work and try to create problems for school administration.

#### **Concept of Achievement**

In a layman's perception, academic achievement refers to students performance in various curricular subjects in educational institutions.

Good writes Achievement means accomplishment or proficiency of performance in a given skill or body of knowledge. Random House Dictionary of English language defines Academic Achievement as something accomplished especially by superior ability, special effort and great valour, "A test of educational achievement is one designed to measure knowledge, understanding, skills in a specified subject or group of subjects.



Academic achievement is an index of the amount learned during the course and results of final examination to be the best indicator of amount learned, even though individuals were not equal in proficiency at the beginning of the learning task. Based upon several considerations, it was concluded that, at present, the best indicator of amount learned in many classroom situations is the grades or results of the final examination. Thus it is clear that any teacher or employer can very easily ascertain the knowledge of the subject matter and amount of knowledge learned by a student during his/her course. Higher grade in the class will be an indicator of high achievement. It is also evident from this finding that better grades will facilitate promotion to the higher class and also getting employment.

By its very nature education is experimental. There are some perennial questions which keep the teacher and curriculum planner baffled. 'What is the key to academic success' is one of the baffling questions that has engaged the attention of educational researchers. Success in school or college is a good indication of probable success in later life.

Achievement is one of the most important criteria on the basis of which students are channelised to different streams of life. In modern competitive society, academic achievement occupies an important position in human life. The keen competition among the participants and entrants in any profession has made the need for good academic career still more important. A low academic achiever has a very poor chance of suitable



employment. The admission in higher institutions is primarily given on the basis of the percentage of marks obtained in earlier courses of study.

The value of academic achievement is reflected in its role for admission to higher education courses on the one hand and employment on the other. Consequently pressure on school and college going students for high academic achievement has increased tremendously. Parents have become more conscious about higher academic scores in examination as they have realised that their wards would be left without a suitable job even after spending a number of years in school and college and consuming the meagre economic resources of an average Indian family. Therefore, parents arbitrarily fix some unrealistic standard of academic achievement for their children consciously or unconsciously without due consideration to their capabilities.

### **The Problem - Need and Justification**

The Education Commission (1964-66) states that the education of handicapped children has to be organised not merely on humanitarian ground and to meet the demands but also on the ground of utility. Proper education generally enables a handicapped child to overcome largely his/her handicap and makes him a useful citizen. Social Justice also demands it. It has to be remembered that the constitutional directive on compulsory education also emphasises this. The National Policy on Education (1986) states that there is a need to integrate the handicapped Children with general community as equal partners, to prepare them for normal growth and



enable them to face life with courage and confidence but life is very competitive and sensory, motor, emotional or intellectual impairment of the handicapped persons is something which holds them back in competition with other people

Of all the disabilities, blindness has been regarded as one of the most severe and most traumatic sensory handicap. There is a saying in Sanskrit 'Sarven Dhrivanam Nayanam Pradhanam' which means of all the organs of our body the eyes are the most important sense to gain knowledge. The normal child starts to learn most of the things by watching what others do, but the blind child has to learn by listening to what is told to him or by asking others. The blind child is, therefore, at a considerable disadvantage in first three or four years of his/her life. This indicates that visual disability is a severe impairment in the personality development of the blind child

Cognitive styles, by embracing both perceptual and intellectual domain and by their frequent implications in personality and social functioning promise to provide a more effective characterization of student's mental function than it could be provided by intellectual tests alone. This characterization should have relevance not only for the course of individual learning in various subject matter areas, but also for the nature of teacher pupil interaction and the social behaviour in the classroom





Thus, cognitive styles by virtue of their widespread operations appear to be particularly important dimensions to assess for educational purposes, yet, the very pervasiveness that under scores their importance at the same time interferes with the measurement of other important personal characteristics such as dimensions of specific aptitudes and interests. This is because cognitive styles operate in testing situation as well, and frequently interacts with test format and test conditions and influence the examinees' score

In the areas of teaching learning, knowledge about cognitive styles offers a number of opportunities of its use, but choices among them depend upon particular educational goals (and upon the much needed empirical research) For example, as soon as we are able to assess the cognitive styles of students, we have the option of placing them in classroom in specific ways, perhaps in homogeneous grouping, which is uniformly beneficial In the recent study of ability grouping in New York city school, high ability students over the course of a year were found to gain an average of 20.7 months of the norms of word knowledge test when in homogeneous groups but an average of 14.7 months in heterogeneous class, perhaps the teaching procedure is geared to the homogeneous low ability students who learn from their brighter peers in heterogeneous classes or view their excellence as a standard for personal striving

It is desirable to assess cognitive styles of teachers to consider the possibility of assigning them to students to obtain particular



combinations of styles that would optimally fasten the pace of learning. We could also consider selecting particular teaching method that would be specially appropriate for certain cognitive styles and certain subjects.

There is need to study cognitive styles of children with and without residual sight in relation to their achievement in different areas. However, the result obtained for boys may not be applicable to girls. Therefore, difference in the achievement of boys and girls with normal sight and residual sight needs to be studied separately.

The findings of the study would provide a frame of reference for curricular development and would supply relevant data regarding cognitive processes that would not only help in integration and assimilation of information but would also help in evolving a hierarchy of contents of the subject and could be of great help in improving these conditions for better development of their personalities.

The accumulated knowledge of the past provides the base on which the edifice of new knowledge is to be created. Hence, the present section purports to go deep into the accumulated knowledge of the past in the field of cognitive styles and achievement. The purpose of reviewing the earlier researches is not only to economise the historical perspective of the present work but also that the related studies that have taken cognizance of one or more variable included in this study and as such these studies may help the investigator to design her study in a manner such that



recurrence of the shortcomings and pitfalls observed in any earlier study may be checked. Alternatively, their findings may be utilized to substantiate and support, wherever necessary, the interpretation of the results of the present study.

The investigator made a survey of the literature related to the present work and came to the conclusion, that, not many researches of this type have been carried out in India. However, quite a few studies of this type have been carried out abroad. The studies related to cognitive styles are available. The studies related to one or the other specific objective laid down in the present study are also available. No single study could be located which encompasses all the aspects of the present work. Hence, the studies available in this field are partially related to the present problem. Therefore, for convenience only those studies have been reviewed by the investigator which have a relevance with one or the other variables of this study. The studies are reviewed under two categories:

- Studies on Cognitive style
- Studies on Achievement

Data on the cognitive style and educational achievement of children with residual sight are extremely limited. In contrast to the dearth of educational and psychological research on children with residual sight, there are extensive medical reports, numerous studies on relations between very minor visual defects and reading disabilities, and many reports of



personal experiences and opinions based on work with partially sighted children. The following need to be noted with regard to children with residual sight:

1. The child with residual sight is truly the neglected child in special education.
2. The estimated rate of 1/500 is too high to be meaningful.
3. The partially sighted children generally do not experience an educational problem of such magnitude that special education becomes necessary for them. The early studies of Myers (1930) and Pintner (1942) both found more partially seeing children with achievement below 90 and fewer with above 109 than would be expected on a normal distribution. Myers reported achievement test scores for 709 partially seeing children and found almost 60 percent to be below 90 and only 9 percent above 109. Pintner reported 41 percent below 90 and 17 percent above 109 in a study of achievement of 602 partially sighted children from 10 to 12 years of age. The mean for achievement for Pintner's group was 95.1 and the median was 93.

Livingston (1958) confirmed Pintner's finding that enlarging the test materials did not increase the scores obtained by partially sighted children when he compared the performances of 60 partially seeing children with those of normal children. Mueller (1962) found that enlarging the Peabody picture vocabulary test pictures did not significantly increase the scores of partially seeing children.





The only study available which comes even close to comparing and contrasting educational achievement and intelligence for the partially sighted children and normal seeing children is an exploratory one by Bateman (1964). No differences were found in school achievement in relation to other partially seeing children. One third of the children were rated below average, 44 percent average, and 23 percent above average. However, when teachers were asked to rate partially seeing children in relation to normal children, their ratings changed to 45% below average and only 15 percent above average. The implication of this appears to be that teachers of partially seeing children perceive them as achieving less well than do normal children, even Peck (1933) found reading of partially seeing children to be at grade level, but two more recent studies (Eakin, Pratt, McFarland 1961, Nolan 1959) found slower than average reading among this group. Bateman (1963b) found that the partially seeing children studying in grade 3 and 4 read less than 1/2 month below grade placement according to normal norms on the Gates silent reading comprehension tests. They read an average of 6 months below Binet mental age. However, as a group, their speed of reading was only about 2 months below their own comprehension and word-recognition level. The types of reading errors made did not differ substantially from those made by normal children of comparable reading levels. Accuracy of reading among the partially seeing was higher than it is for normally seeing. The slight reading retardation found in the partially seeing group was attributed to a small group of children with very mild visual defect, most of which was a refractive problem.



Eakin, Pratt and McFarland (1961) analyzed the studies of type size and style used by children with residual sight and concluded that

- 1 24-point type is preferable to 30-point type
- 2 More partially sighted children can read 24-point type than children who can read smaller type
- 3 There is only inferential support for maintaining that 24-point type is read as fast as 18-point type
- 4 Partially seeing children read faster than the legally blind

In general, each child should read the smallest type he can handle without discomfort in order to maximize his potential speed of reading and the availability of materials to be read. Since the provision of books printed in large type constitutes one of the major educational modifications for this group of exceptional children, every effort should be made to have the necessary materials available on appropriate type size.

**Review highlights** - The following conclusions can be drawn from this review of literature

- 1 Learning is a phenomenon that goes in and out side the four walls of the school, formal learning is considered important in school. In school, the total environment inclusive of organizing various curricular and co-curricular activities, plays an important role in shaping student behaviour with regard to cognitive and non-cognitive factors.



- 2 Cognitive style is bipolar on the one hand. There are flexible, field independent, individualistic, motivation oriented and short and long attention span people who are more analytic and hence prefer subjects and vocations which are of impersonal nature and which require analytic and problem solving skills. At the other end of the continuum are non flexible, field-dependent, non individualistic and motivation free people who are less analytic or global and hence, prefer subjects requiring interpersonal qualities and less analytic abilities
- 3 Children with special needs perform better in mathematics and languages with the present ways of teaching these disciplines
- 4 Cognitive style is related to the development level of the person Between the age of 10 and 12 years, IQ sharply increases, while it increases slightly between the age of 14 to 18 years, after that no significant effect of change of age is visible, for older people it decreases again (in both the sexes) because of their inaccuracy on perception (Eisner 1972)
- 5 Few researches seem to be carried out on relationship of the cognitive style with achievement with reference to children with special needs

In the light of conceptual framework discussed the investigator decided to undertake a study which has been titled as -

**"Cognitive Styles of Children With And Without  
Residual Sight And Their Achievement In different Areas"**



## Objectives

The study purports to realise the following objectives

- 1 To study the Cognitive styles of children with and without Residual sight belonging to special and integrated settings
- 2 To study the achievement of children with and without Residual sight in different areas (science and social science) studying in special and integrated settings
- 3 To compare the cognitive style and achievement of children with and without residual sight studying in special and integrated settings.

## Hypothesis

Considering the objectives of the study and the review of related literature the following hypothesis are proposed to be tested

- 1 There is no significant difference in cognitive styles of residual sighted children and normal sighted children studying in special and integrated settings
- 2 There is no significant difference in achievement of residual sighted between children with and normal sighted children studying in special and integrated settings.
- 3 There is no significant relationship in achievement of residual sighted and normal sighted children belonging to different socio-economic strata

## Limitation of the Study

The following were the main limitations of this study to constraints





of time and resources

- 1 The study is limited to cognitive styles of children with residual sight and their achievement at primary level
- 2 The sample selected for this study was limited to 200 children with Residual sight and 200 Children with Normal sight
- 3 The study was conducted within geographical areas of Delhi, Dehradun and Haryana
- 4 Considering the multiplicity of languages in India, the study is confined to the Hindi speaking children with Residual sight
- 5 Children with residual sight are usually scattered in a very large number of schools. The identification of such children is a serious problem because they are spread over a large geographical area. The study is confined to the Children with residual sighted studying in special and integrated settings
- 6 The study was strictly restricted to class II and class V children only
- 7 Out of several styles and curricular areas, seven types of cognitive styles and two subjects of Language and Mathematics were selected for administration of tests
- 8 As regards the statistical treatment of data only the mean, standard deviation, 't' test, chi-square, coefficient of correlation, have been used

The sample of the study and methodology adopted to test the hypotheses are discussed at length in the next chapter.



## CHAPTER - II

### PLAN AND PROCEDURE OF THE STUDY

After reviewing relevant literature relating to the problem under investigation and after developing an overview of the total layout and methodology to be followed, an investigator has to take decisions, crucial for the accomplishment of the aims of his study such as research design suitable for the execution of the study. This is followed by the selection of the sample, identification of data pertinent to the study, tools required for collection of data, method of administration and the scoring of the tests and various kinds of statistical techniques to be used. The activities mentioned above comprise the design of any research study.

#### THE RESEARCH DESIGN

Design is a means to identify and adopt a technique most suited for the research in hand. It is the process of making decisions before a situation arises in which the decision has to be carried out. It is a process of deliberate anticipation directed towards bringing an unexpected situation under control.

According to Johoda, Deutish and Cook, a research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure "



In the present investigation relationship between the value of one variable and that of another variable had to be studied. Further, the groups with difference in the extent of sight have been formed, within each group the subjects were relatively homogenous with respect to some variables (independent variables), while it had some comparable values with respect to other groups for the same variables and were compared with the scores of dependent variables. First of all, seven types of cognitive styles were identified following the procedure described by Aggarwal (1983). On the basis of the frequencies of subjects on groups of cognitive styles, seven contingency tables (2x2) were prepared. The same sample was administered the achievement test in language and Mathematics. Cognitive style inventory and Achievement Test were administered to the total sample of children comprising 200 children with Residual sight (100 boys and 100 girls) and 200 children with Normal sight (100 boys and 100 girls).

- 3 -

### **Sample**

For selection of the sample including institutions for the present study, the following criteria were kept in mind -

- 1 As this study was designed for children with and without residual sight, studying in special and integrated settings, the investigator was free to select the schools randomly for administering the tests
- 2 The convenience and co-operation of the school authorities, principal and class teachers enabling the investigator to visit the institution as often as required for the study



- 3 Only 9 (nine) school from Delhi, 1 (one) from Dehradun and 3 (three) school from Haryana were selected This selection was made by the investigator as per her convenience
- 4 Only class II and class V grade pupils were selected by the investigator

The sample of the present study consisted of 200 children with residual sight and 200 sighted children drawn from the primary sections of senior secondary schools of National Capital Territory. Delhi, Dehradun and Haryana Stratified cluster sampling technique was employed to select children for the sample The number of children with residual sight is shown in Table 2.1





Table 2.1

Sample of the study

Children with Residual Sight

S No	Schools	Class II	Class V	Total
1	Andh Kanya Maha Vidyalaya under Blind Social Welfare	10	10	20
2	Jormal Periwal Memorial School for the Blind	10	10	20
3	Rashtriya Virja Nand Andh Kanya Sr Secondary School	5	10	15
4	Bharat Blind School, Shahdara	10	5	15
5	Govt School for the Blind boys Kingway Camp	10	10	20
6.	Govt School for the Blind boys Timarpur	5	10	15
7	National Association for blind R K. Puram Sector IV	10	10	20
8	Blind Relief Association	10	5	15
9	Model School for Blind children and partially sighted NIVH, Dehradun	10	10	20
10	S D Institute for the blind Ambala	5	5	10
11.	Blind Relief Association, Andh Kanya Vidyalaya, Hissar	5	5	10
12	Netraneen Kanya Vidyalaya Mahinder Gard	10	10	20
	Total 12	100	100	200

Sighted children of the same Educational level, Socio-Economic



Status and Educational Achievement that of Children with Residual sight were selected using random sampling technique Table 3.2 presents the composition of final sample of the study

Table 2.2.

Overall Sample of Subjects

S No	Children with * Residual Sight					Children with ** Normal Sight					G. Total
	Class II Boys   Girls		Class V Boys   Girls			Total	Class II Boys   Girls		Class V Boys   Girls		
1	5	5	5	5	20		5	5	5	5	20
2	5	5	5	5	20	2	3	2	3	10	30
3	3	2	5	5	15	5	5	5	5	20	35
4	5	5	5	5	20	5	5	5	5	20	40
5	2	3	5	5	15	3	2	3	2	10	25
6	5	5	3	2	15	5	5	5	5	20	35
7	5	5	5	5	20	2	3	2	3	10	30
8	5	5	3	2	15	5	5	5	5	20	35
9	5	5	5	5	20	2	3	2	3	10	30
10	3	2	2	3	10	5	5	5	5	20	30
11	2	3	3	2	10	5	5	5	5	20	30
12	5	5	5	5	20	5	5	5	5	20	40
	50	50	50	50	200	50	50	50	50	200	400

\* Children with Residual sight = 200

\*\* Children with Normal sight = 200

Total = 400



The identification of such children can be done by the Investigator himself through observation of appearance of the eye, complaints associated with the use of the eye and their seeing behaviour

**Table 2.3.**  
**Checklist for Identifying School Going**  
**Children with Residual Sight**

**Appearance of the eyes.**

- 1 Eyes not appearing straight especially when the child is tired
- 2 Reddened eyes or eyelids
- 3 Watery eyes
- 4 Eyes in constant motion
- 5 Rubbing the eyes frequently

**Complaints associated with the use of eyes.**

- 1 Headache
- 2 Nausea or dizziness
- 3 Burning or itching in eyes
- 4 Blurred vision at any time
- 5 Words or lines running together
- 6 Pain in the eyes after close work

**Seeing Behaviour.**

- 1 Does the child have rigid body when reading?
- 2 Does the child place head too close to book or desk when reading or writing?



- 3 Does the child frown when reading or writing?
- 4 Does the child blink excessively when reading or writing?
- 5 Does the child become frequently inattentive when reading or writing?
- 6 Does the child lose or skip his/her place while reading or writing?
- 7 Does the child move head or book instead of eyes while reading?
- 8 Does the child become fatigued while reading or writing?
- 9 Does the child use a finger as line marker to guide the eyes while reading?
- 10 Does the child close cover one eye when reading?
- 11 Does face problems in pointing to familiar objects in books?
- 12 Does the child have difficulty in pointing to the title of a lesson in bold print in the book?
- 13 Is the child unable to get information from the blackboard when the teacher does not speak while writing
- 14 Does the child request the teacher to change his/her seat in order to see the blackboard clearly?
- 15 When name of a child is called out by the teacher can he/she locate the caller?
- 16 Does the child avoid window in the classroom?
- 17 Does the child face problems in location of his/her friends while playing?
- 18 Does the child hesitate in moving around in bright light





## **Data Collection Tools**

The tools used to ascertain children's cognitive styles, achievement and socio-economic status are described here.

### **1. Cognitive Style**

The Indian adaptation made by Dr S.C Aggarwal (1983) of the cognitive style inventory, originally prepared by Rita and Dunn (1978) has been used for the purpose of identifying the cognitive styles of different groups of children. The following eight types of cognitive styles are included in the inventory -

1. Flexibility Vs Non Flexibility
2. Individualistic Vs Non-Individualistic.
3. Visual Vs Aural.
4. Field Independent Vs Field Dependent.
5. Short attention span Vs Long attention span.
6. Motivation centred Vs Motivation non centred
7. Environment Oriented Vs Environment free
8. Responsibility Vs Irresponsibility

Cognitive style inventory in Hindi consisting of 63 items is intended to measure seven cognitive style preferences. All the items admit yes or no response and the scores range from 0 to 9 for each cognitive style separately.



Marking and scoring was done as per the instructions given in the manual. The reliability quotients of different cognitive styles are presented in Table 2.4.

Table 2.4.

**Reliability of Cognitive Style Inventory**

S No	Variables	Rtt	Serial number of the items									
1	Flexibility Vs Non-Flexibility	.884	1	8	15	22	29	36	43	50	57	
2	Individualistic Vs Non-Individualistic	.912	2	9	16	23	30	37	44	51	58	
3	Visual Vs Rural	.856	3	10	17	24	31	38	45	52	59	
4	Field-Independent Vs Field-Dependent	.849	4	11	18	25	32	39	46	53	60	
5	Short attention span Vs Long attention span	.869	5	12	19	26	33	40	47	54	61	
6	Motivation centred Vs Motivation non-centred	.841	6	13	20	27	34	41	48	55	62	
7	Environment oriented Vs Environment free	.891	7	14	21	28	35	42	49	56	63	

The test retest reliability co-efficients were calculated for each cognitive style. Table 2.3 indicates that reliability coefficient ranged between 0.841 and 0.912. Since the coefficients are quite satisfactory, the inventory seems to be consistent in measuring students' cognitive styles. Thus, the reliability of the inventory is beyond doubt.



## **2. Achievement**

The following tests were used for the assessment of learning achievement of class II and class V children

### **- Class II Language Achievement Test**

For class II students a simple literacy and numeracy test based on competencies expected to be acquired by the end of class I was used. The test was developed by NCERT as a part of the Primary Education Curriculum Renewal (PECR) project. The test comprising 20 items requires reading of 10 letters and 10 words.

### **- Class II Mathematics Achievement Test**

The Mathematics test comprises 14 items related to recognition of small and large numbers, addition and subtraction.

### **- Class V Language Achievement Test**

The language achievement test comprises two sections. The first section aims at testing word meaning and consists of 20 items. The second section consisting of 24 multiple choice items tests the reading comprehension.



## - Class V Mathematics Achievement Test

The Mathematics achievement test comprises 40 multiple choice items related to number, place value, addition, subtraction, Multiplication, division, fraction, time and shape, weights and measures, geometry and shape

### 3. Socio Economic Status

- 1 Upper socio economic status group
- 2 Upper middle socio economic status group
- 3 Middle socio economic status group
- 4 Lower middle socio economic status group.
- 5 Lower socio economic status group.

For the above classification, Dr. B. Kuppuswamy's socio-economic status scale (urban) revised and modified (1977) by Dr. B Parashivamurthy was used. Since in the present study there was no student with S E S. score below 5, only four groups were taken into consideration

The coefficient of correlation 'r' is calculated between Achievement in language and Mathematics and socio economic status separately. The obtained value of 'r' is tested for significance at .05 level or 01 level of confidence

The numerical value of 'r' is a measure of relationship between two variables. Through product moment method 'r' is calculated in order to determine whether there is any relationship between the two variables





### Administration of the Tools

After getting the necessary permission from the principals of different schools in Delhi, the investigator administered the cognitive style inventory and achievement test to the students of 2nd and 5th standard. The students were given instructions on how to answer various statements of cognitive style inventory and achievement test. The students were requested to ask the investigators to clear their doubts, if any. The sequence of test administration was kept uniform for all subjects.

The cyclostyled achievement test paper itself contained the Bio-data form. So the pupils/students were requested to fill the necessary Bio-data in the question paper itself. The unfilled Bio-data forms were filled by the investigator itself with the help of information contained in the admission register of the students in some of the schools as most of the students did not know their father's education and monthly income. The present investigator also took it as an independent variable in her study and collected the necessary data.

### Statistical Techniques used

After completion of data collection, the investigator scored performance of the students in their test by using a well prepared scoring key. After scoring, the data were tabulated for analysis for which the following statistical techniques were used:

1. Measures of Central tendency and SD were calculated.



to know about the nature of the scores on different variables

- 2 The 't' test technique was adopted to find out whether there is any significant difference between the means of all the groups which had to be compared
- 3 Chi Square ( $X^2$ ) was calculated to ascertain the significance of differences in respect of various groups in relation to the cognitive style
- 4 The product moment correlation coefficients (r) was calculated to find out the relationship between the achievement in language and mathematics and the other variables



## CHAPTER - III

# ANALYSIS AND INTERPRETATION OF DATA

The value of research in education depends largely on the quality and rigour of the process through which its results are derived and then analysed, interpreted and applied. In order to derive facts and meaning, the raw scores were analysed and interpreted from different angles. To test the hypotheses, the data on different variables in different combinations were subjected to detailed analysis.

It has been considered desirable to present the results of the descriptive statistics in terms of Mean and Standard Deviation regarding the various measures included in this study before presenting the detailed results related to the hypotheses.

In this chapter analysis of the Data collected through administration of various tools has been presented in two sections

- 1 Section one of the chapter deals with the hypothesis related to the cognitive styles of children with residual sight and children with normal sight studying in special and integrated settings
- 2 Section two deals with the hypothesis related to the achievement in language and mathematics of children with residual sight and children with normal sight studying in special and integrated



settings

The main objective of the study was to identify the cognitive styles of children with and without Residual sight belonging to special and integrated settings. To achieve this objective the following hypothesis was formulated

**Hypothesis states that there is no difference in the cognitive styles of children with residual sight and normal sight Studying in special and integrated settings.**

For the purpose of testing the above hypothesis 2x2 contingency tables were prepared by taking each cognitive style separately for both the groups of children and chi-square test was applied to test the hypothesis. The chi-square values for each cognitive style in both groups have been presented in Tables 3.1 to 3.7





**Table 3.1.**

**Flexibility Vs Non Flexibility**

**Cognitive Style of Children with Residual Sight**

**and Children with Normal sight**

Subjects	Flexibility	Non-Flexibility	Total
Children with Residual Sight	120	80	200
Children with Normal Sight	110	90	200
Total	230	170	400

$$X^2 = 2.80 \text{ df} = 1 \text{ Sig at .01 level}$$

Table 3.1. shows that chi-square value of 2.80 with df-1 is significant at .01 level. Thus, the null hypothesis stands rejected which implies that the children with residual sight seem to be more flexible than the Children with normal sight, as 120 out of 200 residual sighted children showed their preference for flexibility style, while the remaining 80 have shown their preference for non-flexible cognitive style. Among the normal sighted children 110 out of 200 have shown preference for flexible style while the remaining 90 have preference for non-flexibility style.

It is obvious that residual sighted students are not satisfied with just what is taught to them in the classroom by the teacher, rather they exploit variety of channels of learning and they have more inclination toward experiment, discussion and personal development regarding acquisition of knowledge. They generally show more interest in consulting



various types of books to obtain exhaustive information and solution of the problems

**Table 3.2.**  
**Individualistic Vs Non-Individualistic**  
**Cognitive Style of Children with Residual Sight**  
**and Children with Normal sight**

Subjects	Individualistic	Non-Individualistic	Total
Children with Residual sight	130	70	200
Children with Normal sight	105	95	200
Total	235	165	400

$$X^2 = 10.43 \text{ df} - 1 \text{ Sig at } 01 \text{ level}$$

Table 3.2 reveals that the chi-square value for individualistic Vs Non individualistic cognitive style of two groups i.e children with residual sight and children with normal sight is 10.43 which is significant at 01 level of confidence. Thus, the null hypothesis in this case also stands rejected, which implies that children with residual sight differ significantly from children with normal sight on the individualistic Vs Non individualistic cognitive style. Children with residual sight seem to be more individualistic in comparison children with normal sight as 130 out of 200 residual sighted children showed their preference for individualistic cognitive style, while the remaining 70 have shown their preference for non-individualistic cognitive style. Among the children with normal sight



105 out of 200 have developed individualistic cognitive style preference while the remaining 95 have developed for non-individualistic style. This implies that children with residual sight give more emphasis on the use of senses except eye. It seems to affect their preference for individualistic cognitive style, as the source of knowledge are senses. If more than one senses are involved in the learning process, it will facilitate learner to comprehend the concept. In the case of children with residual sight a significant problem is visual fatigueness as they are able to see only large size, colors and shapes.

Table 3.3.

Visual Vs Aural

Cognitive Style of Children with Residual Sight  
and Children with Normal Sight

Subjects	Visual	Aural	Total
Children with Residual sight	105	95	200
Children with Normal sight	102	98	200
Total	207	193	400

$$\chi^2 = 1.92 \text{ df} - 1 \text{ Value not significant}$$

Table 3.3 indicates that chi-square value for children with residual sight and children with normal sight on visual Vs aural cognitive style is 1.91 which is not significant at any level of confidence. This implies that both groups do not differ from each other with regard to this.



visual Vs aural cognitive style They appear to have almost equal preference for the visual and aural cognitive style.

**Table 3.4.**  
**Field-independent Vs Field Dependent**  
**Cognitive Style of Children with Residual Sight**  
**and Children with Normal Sight**

Subjects	Field Independent	Field Dependent	Total
Children with Residual sight	120	80	200
Children with Normal sight	110	90	200
Total	230	170	400

$$X^2 = 2.89 \text{ df} - 1 \text{ Sig at } 01 \text{ level}$$

The above Table 3.4 shows that chi-square value of 2.89 is significant at 01 level. Thus, the null hypothesis stands rejected which implies that children with residual sight and children with normal sight differ significantly on the field-independent Vs field dependent cognitive style. Children with residual sight seem to be more field independent in comparison with children with normal sight as 120 out of 200 residual sighted children have developed field independent cognitive style while the remaining 80 have developed for field-independent cognitive style. Among children with normal sight 110 out of 200 have the field independent cognitive style while the remaining 90 have the field dependent cognitive style which implies that residual sighted children are more inquisitive,





open minded, and divergent in thinking They are dynamic and that is why they demonstrate their preference for field independent cognitive style, instead of structured learning they want free and independent thinking

Table 3.5.

Short Attention Span Vs Long Attention Span  
Cognitive Style of Children with Residual Sight  
and Children with Normal sight

Subjects	Short attention span	Long attention span	Total
Children with Residual sight	102	98	200
Children with Normal sight	106	94	200
Total	208	192	400

$$X^2 = 1.99 \text{ df} - 1 \text{ Value not significant}$$

The null hypothesis with regard to difference in short attention span Vs long attention span cognitive style of children with residual sight and children with normal sight is accepted as the chi-square value is 1.99 which is not significant at any level of confidence. It implies that learning is not affected by the status of sight of an individual Children's short attention span and long attention span cognitive style is related to their interests, motivation and learning and not to their status of sight



Table 3.6.

Motivation Centred Vs Motivation non Centred  
Cognitive Style of Children with Residual Sight  
and Children with Normal Sight

Subjects	Motivation centred	Motivation non-centred	Total
Children with Residual sight	105	95	200
Children with Normal sight	102	98	200
Total	207	193	400

$$\chi^2 = 1.99 \text{ df} - 1 \text{ Value not significant}$$

Table 3.6 indicates that chi-square value for motivation centred Vs motivation non-centred cognitive style for two groups i.e. Children with Residual sighted and normal sight has come out to be 1.99 which is not significant at any level of confidence. Motivation is an essential factor in accelerating the process of learning. In fact, no learning can take place without motivation. The success of a teacher depends on his/her ability to motivate a child to learn whether the child is residual sighted or normal sighted. Therefore, children with residual sight as well as children with normal sight have equal amount of preference for this cognitive style.



and other distractors and prefer to learn in a quiet and congenial environment. There are other students who do not take note of such disturbances and can concentrate on their learning task without being disturbed. But their number is quite small in comparison to normal students who require peaceful environment for learning. There is need to ensure congenial environment for residual children enable them to learn with ease.

**Hypothesis** States that with regard to cognitive styles there is no difference between Residual Sighted boys and Residual Sighted girls studying in special and integrated settings.

The Chi-Square values for each Cognitive style in both groups have been presented in Table 3.8. to 3.14.

**Table 3.8.**

**Flexibility Vs Non Flexibility**

**Cognitive Style of Residual Sighted boys  
and Residual Sighted girls**

Subjects	Flexibility	Non-Flexibility	Total
Residual sighted boys	65	95	100
Residual sighted girls	45	55	100
Total	110	90	200

$$X^2 = 2.65 \text{ df} - 1 \text{ Sig. at } 01 \text{ level.}$$

Table 3.8 shows that chi-square value of 2.65 is significant at 01 level. Thus, the null hypothesis stands rejected which implies that



Residual boys and Residual sighted girls differ significantly from each other on the flexibility Vs non flexibility cognitive style. More residual sighted boys seem to be flexible in comparison with residual girls as 65 out of 100 residual boys showed preference for flexible cognitive style while the remaining 40 have shown their preference for non flexible cognitive style. Among the residual sighted girls, 35 out of 100 have shown preference for flexible cognitive style while the remaining 55 have preference for non flexible cognitive style

This implies that residual sighted boys having better ability to perform in different fields, are not satisfied with just what is taught to them in the classroom by the teacher. They show more interest in consulting various types of books to get exhaustive information. On the other hand, residual sighted girls seem to be satisfied with traditionally accepted responses to learning situations

**Table 3.9**  
**Individualistic Vs Non-Individualistic**  
**Cognitive Style of Residual Sighted boys**  
**and Residual Sighted girls**

Subjects	Individualistic	Non-Individualistic	Total
Residual sighted boys	65	35	100
Residual sighted girls	45	55	100
Total	110	90	200

$$X^2 = 2.00 \text{ df} - 1 \text{ Value not significant}$$





cognitive style is 1.99, which is not significant at any level of confidence. This implies that both groups i.e. residual sighted boys and residual sighted girls do not differ from each other with regard to the visual Vs aural cognitive style.

**Table 3.11**  
**Field Independent Vs Field Dependent**  
**Cognitive Style of Residual Sighted boys**  
**and Residual Sighted girls**

Subjects	Field Independent	Field Dependent	Total
Residual sighted boys	60	40	100
Residual sighted girls	50	50	100
Total	110	90	200

$$X^2 = 4.00 \text{ df} - 1 \text{ Sig. at } 0.01 \text{ level}$$

Table 3.11. shows that chi-square value of 4.00 is significant at 0.01 level. Thus, the null hypothesis stands rejected, which implies that residual sighted boys and residual sighted girls differ significantly on the field independent Vs field dependent cognitive style. Residual sighted boys seem to be more field independent in comparison with residual sighted girls, as 60 out of 100 residual boys showed their preference for field independent style while the remaining 40 have shown their preference for field dependent cognitive style. The cognitive style of 50 residual sighted girls is field independent while it is field dependent of the remaining 50 residual sighted girls.



It may be argued on the basis of this finding that residual sighted boys do not always require structured learning situation and they are less affected by the field. They get ample opportunity to develop themselves academically. However, in the case of residual sighted girls it is just the reverse.

**Table 3.12.**

**Short attention span Vs Long attention span  
Cognitive Style of Residual Sighted boys  
and Residual Sighted girls**

Subjects	Short attention span	Long attention span	Total
Residual sighted boys	50	50	100
Residual sighted girls	60	40	100
Total	110	90	200

$$\chi^2 = 1.89 \text{ df} - 1 \text{ Value not significant}$$

Table 3.12 shows that the chi-square value for above mentioned cognitive style i.e. Short attention span Vs long attention span for two groups i.e. residual sighted boys and residual sighted girls comes out to be 1.89 which is not significant at any level of confidence. It implies that both groups i.e. residual sighted boys and residual sighted girls do not differ from each other with regard to short attention span Vs long attention span cognitive style. The two groups are almost equally divided with regard to length of attention span.

Students preference for short attention/long attention cognitive



style are related to students interest, motivation and learning This both groups stands on similar footings

**Table 3.13**  
**Motivation centred Vs Motivation non centred**  
**Cognitive Style of Residual Sighted boys**  
**and Residual Sighted girls**

Subjects	Motivation centred	Motivation non-centred	Total
Residual sighted boys	75	25	100
Residual sighted girls	65	35	100
Total	140	60	200

$$X^2 = 1.98 \text{ df} - 1 \text{ Value not significant}$$

Table 3 13 reveals that chi-square value for residual sighted boys and residual sighted girls on motivation centred Vs motivation non centred cognitive style is 1.98 which is not significant at any level of confidence This implies a that residual sighted boys and residual sighted girls do not differ from each other with regard to possession of motivation centred or motivation non-centered cognitive style

Motivation is an essential factor in accelerating the process of learning In fact learning can not take place without motivation The success of a teacher depends on his/her ability to motivate a child to learn A greater number of residual sighted boys and residual sighted girls have developed motivation centred cognitive style.



Table 3.14.

Environment oriented Vs Environment free

Cognitive Style of Residual Sighted boys

and Residual Sighted girls

Subjects	Environment oriented	Environment free	Total
Residual sighted boys	70	30	100
Residual sighted girls	65	35	100
Total	135	65	200

$$X^2 = 5.82 \text{ df} - 1 \text{ Sig at } 0.01 \text{ level}$$

Table 3.14 reveals that the chi-square value on environment oriented and environment free cognitive style for residual sighted boys and residual sighted girls is 5.82, which is significant at .01 level of confidence. Residual sighted boys seems to be more environment oriented in comparison with residual sighted girls as 70 out of 100 have residual sighted boys showed their preference for environment oriented cognitive style. While the remaining 30 out of 100 shown their preference for environment free cognitive style. Among the residual sighted girls 65 out of 100 have environment oriented cognitive style while remaining 35 have preference for environment free cognitive style.

The result indicates that residual sighted boys are quite sensitive to physical environment i.e. sound, conversations, street noise and other distractors and prefer to learn in a quiet and congenial environment. There are other students who do not take note of such disturbances and can





concentrate on their learning task without being disturbed. But their number is quite small in comparison to the students who require peaceful environment for learning. There is need to ensure congenial environment for residual children enable them to learn with ease.

The second objective of the study was to measure the achievement of children with and without residual sight in different areas studying in special and integrated settings. To achieve this objective the following hypothesis was formulated:

**Hypothesis states that there is no difference in the class II Language Achievement of Children with Residual sight and Normal Sight studying in Special and Integrated Settings.**

In order to test this hypothesis the investigator applied (t) test to ascertain the extent to which different groups of children have learnt language and mathematics.

#### **Language Achievement Class II**

The sample comprised 400 children of class II 200 children with residual sight and 200 children with normal sight. All children were given language test having following types of items:



Table 3.15.

## Class II Language Test Profile

S No	Area	Sub-Areas	Items
1	Letter Reading	Simple letter	9
		Complex letter	1
		Total	10
2	Word Reading	Words beginning and ending with letter without 'Matra'	2
		Words beginning with letter without 'Matra' and ending with letter with 'Matra'	1
		Words beginning with letter with 'Matra' and ending with letter without 'Matra'	3
		Words beginning with letter with 'Matra' and ending with letter with 'Matra'	4
		Total	10
		Grant Total	20

The Mean Achievement scores of the sample class II children with Residual Sight and Normal sight studying in special and integrated settings are given below



Table 3.16

Mean Achievement Scores of Class II Children in Language

Subjects	Mean	SD	't'
Residual sighted children N=200	39.93	15.62	2.58
children with Normal sight N=200	56.93	15.55	

\* Significant at .01 level

Table 3.16 indicates that the mean achievement scores in language test (letter reading and word reading) of children with Residual sight and children with normal sight are 39.93 and 56.93 respectively

The calculated 't' value is significant at .01 level of significance. Therefore, the null hypothesis that there is no significant difference in language achievement of children with residual sight and children with normal sight stands rejected. Children with residual sight and children with normal sight have different levels of achievement in language. Children with normal sight get more and better quality experiences from the environment which are conducive for language learning. On the other hand, children with residual sight can achieve only a limited success in language learning because they get only a limited number of experiences because of their handicap.



Table 3.17

Mean Achievement scores of Class II Children in Language

Subjects	N	Mean	SD	't' value
Residual sighted boys	100	40.65	14.76	1.96
Residual sighted girls	100	37.46	16.2	

\* Significant at 05 level

Table 3.17 reveals that the mean achievement scores in language i.e. letter reading and word reading of residual sighted boys and residual sighted girls are 40.65 and 37.46 respectively

The calculated 't' value is significant at 05 level of significant. Therefore, null hypothesis that there is no significant difference in language achievement of children with residual sighted boys and residual sighted girls stands rejected. The achievement of residual sighted boys in language (letter reading and word reading) is better than that of residual sighted girls. Language learning depends on the quantity and quality of experiences one gets from the environment. Obviously boys with residual sight manage to obtain more experiences from the environment than the residual girls can manage.





Table 3.18

Mean Achievement scores of class II Children in Language  
(School wise)

Subjects	N	Mean	SD	't' value
Residual sighted boys in special schools	50	22.90	1.62	3.02*
Residual sighted boys in integrated schools	50	36.40	1.52	
Total	100			

\* Significant at .01 level

Table 3.18 indicates that the mean achievement scores in language (letter reading and word reading) of residual boys studying in special and integrated schools are 22.90 and 36.40 respectively. The calculated 't' value is significant at .01 level of confidence. Therefore, null hypothesis that there is no difference between residual boys studying in special and integrated settings stands rejected.

It is obvious that the achievement of residual boys studying in integrated settings is higher than that of residual boys studying in special schools. This may be due to the fact that in integrated settings residual sighted children get more opportunities to interact with normal sighted children while in the special schools their exposure is limited to a particular type of children only. Interaction with children of normal sight proves to be a rich source of experiences conducive for language learning.



Hypothesis states that there is no difference in the class II Mathematics Achievement of Children with Residual sight and Normal sight studying in Special & Integrated settings.

In order to test this hypothesis the investigator applied 't' test to ascertain the extent to which different groups of children have learnt Mathematics

### Mathematics Achievement Class II

To assess the achievement of class II children in Mathematics a simple numeracy test comprising 14 items related to number recognition and subtraction was administered to 400 children. Details of the type of items is given below

Table 3.20

#### Class II Mathematics Test Profile

S No	Area	Sub-Areas	Items
1	Recognition of small and large numbers	Pairs of one digit	1
		Pairs of two digit number	4
		Pairs of two digit and one digit number	1



The calculated 't' value in respect of difference in means is significant at 01 level of confidence. Therefore, the null hypothesis that with regard to mathematics achievement there is no significant difference between children with residual sight and children with normal sight stands rejected. The achievement level in mathematics of residual sighted children is lower than that of children with normal sight. The residual sighted children could not attempt even single addition or subtraction item correctly. This may be due to the fact that children with residual sight could not concentrate on their studies due to their handicap. This may also be due to non-availability of suitable instructional materials and use of teaching methods which are appropriate for visually impaired children. On the other hand, children with normal sight get full opportunities to develop themselves academically. They obtain varied experiences inside the school as well as outside the school.

**Table 3.22**

**Mean Achievement scores of class II children in Mathematics.**

Subjects	N	Mean	SD	't' value
Residual sighted boys	100	48.7	12.49	9.26*
Residual sighted girls	100	27.7	14.27	

\* Significant at 01 level

Table 3.22 reveals that mean scores for residual sighted boys and sighted girls in mathematics achievement are 48.7 and 27.7 respectively.



The calculated 't' value in respect of difference in means is significant at 01 level of confidence. Therefore, null hypothesis that with regard to mathematic achievement, there is no significant difference between residual sighted boys and residual sighted girls is rejected.

The higher achievement in mathematics of residual sighted boys may be the result of their interest, motivation, and varied experiences that boys can manage to obtain. However, achievement in mathematics in the case of residual sighted girls is not satisfactory. This may be due to the double disadvantage of the residual sighted girls i.e. the disadvantage arising out of visual impairment and the disadvantage of being a girl child.

**Table 3.23**

**Mean Achievement scores of class II children in Mathematics**  
(School wise)

Subjects	N	Mean	SD	't' value
Residual boys in special schools	50	24.90	1.72	2.90*
Residual boys in integrated schools	50	30.37	1.54	

\* Value is significant

It is observed from Table 3.23 that mean scores of mathematics for residual sighted boys studying in special and integrated schools are 24.90 and 30.37 respectively. The calculated 't' value of 2.90 in respect of





difference in means is significant at 01 level of confidence. Therefore, null hypothesis that with regard to mathematics achievement, there is no significant difference between residual sighted boys studying in special and integrated settings is rejected.

This implies that the environment of integrated settings is a vital factor for the development of handicapped children in academic areas. The higher achievement in mathematics of residual sighted boys studying in integrated settings may be due to the fact that these children get more opportunities to interact with sighted persons, while in the case of residual sighted boys studying in special settings, their interaction will be limited to the children of special categories only.

**Table 3.24.**  
**Mean Achievement scores of class II children in Mathematics**  
**(School wise)**

Subjects	N	Mean	SD	't' value
Residual sighted girls in special schools	50	26.37	1.95	1.87*
Residual sighted girls in integrated schools	50	27.32	1.70	

\* Value not significant

Table 3.24 indicates that mean scores in mathematics of residual girls studying in special and integrated schools are 26.37 and 27.32 respectively.



The calculated 't' value for residual sighted girls studying in special and integrated settings on mathematics achievement is 1.87 which is not significant at any level of confidence. Therefore, null hypothesis is accepted which implies that the residual sighted girls studying in special and integrated settings stand on similar footing.

This implies that the achievement level of mathematics, in the case of residual sighted girls, studying in special and integrated settings are related to their interest, understandings, motivation and learning so an understanding of the students achievement level in mathematics at this stage will be of great interest to teachers.

**Hypothesis States that there is no difference in the class V Language Achievement of Children with Residual sight and Normal sight studying in Special and Integrated settings.**

In order to test this hypothesis the investigator applied 't' test to ascertain the extent to which different groups of children have learned language.

#### **Achievement in Language Class V**

To assess the achievement of class V children in Language test was administered in two parts - Word meaning and reading comprehension comprising 20 and 24 items respectively. A detailed description of the test is given below.



Table 3.25.

## Class V Language Test Profile

S No	Area	Sub-Areas	Items
1	Word Meaning	Antonyms	13
		Synonyms	07
		Total	20
2	Reading comprehension	Factual Details	17
		Inferences	06
		Central idea	01
		Total	24
		Grand Total	44

The mean achievement scores of the Sample of the class V children with Residual sight and Normal sight studying in special and integrated settings are given below.

Table 3.26.

## Mean Achievement scores of class V children in language

Subjects	N	Mean	SD	't' value
Residual sighted children	200	40.65	14.7	8.19*
Normal Sighted children	200	57.2	15.67	

\* Significant at 01 level



It is evident from Table 3.26 that mean achievement scores in language (word meaning and reading comprehension) of residual sighted children and normal sighted children are 40.65 and 57.2 respectively. The calculated 't' value in respect of difference in means scores is significant at 0.1 level of confidence. Therefore, null hypothesis that with regard to language achievement there is no significant difference between residual sighted children and normal sighted children stands rejected.

The achievement of language sighted children is higher than that of residual sighted children. This may be due to the fact that sighted children get more opportunities to interact with people, books, magazines, newspapers and thus they receive varied experiences. In the case of residual sighted children, the range of experiences is because of the difficulties they face in seeing and reading.

**Table 3.27.**

**Mean Achievement scores of class V children in language**

Subjects	N	Mean	SD	't' value
Residual sighted boys	100	38.74	2.89	1.92*
Residual Sighted girls	100	36.3	3.27	

\* Value not Significant

Table 3.27 reveals that mean achievement scores in language (word





meaning and reading comprehension) of residual sighted boys and residual sighted girls are 38.74 and 36.3 respectively. The calculated 't' value in respect of difference in mean scores is not significant at any level of confidence. Therefore, null hypothesis is accepted as both groups of children stand on similar footing. Residual sighted boys and residual sighted girls have almost the same level of performance in language learning. Both the groups suffer from the same handicap and sex does not play any role in children's performance in language learning.

**Table 3.28.**  
**Mean Achievement scores of class V children in language**  
**(School wise)**

Subjects	N	Mean	SD	't' value
Residual sighted boys in special schools.	50	21.46	16.2	5.66*
Residual sighted boys in integrated schools.	50	40.65	14.78	

\* significant at .01 level.

It is evident from Table 3.28 that mean achievement scores of language (word meaning and reading comprehension) for residual boys studying in special and integrated settings are 21.46 and 40.65 respectively. The calculated 't' value in respect of difference in mean scores is significant at .01 level of confidence. Therefore, null hypothesis that there is no significant difference in language achievement of residual boys studying in special and integrated schools stands



rejected

The higher achievement in language of residual sighted boys studying in integrated settings may be due to the fact that they get more opportunities to interact with sighted children, while the residual boys studying in special settings get limited exposure and opportunities to interact with a large number of people

**Table 3.29.**

**Mean Achievement scores of class V children in language  
(School wise)**

Subjects	N	Mean	SD	't' value
Residual girls in special schools	50	26.59	1.62	1.64*
Residual girls in integrated schools	50	27.12	1.26	

\* Value not significant

Table 3.29 reveals that mean scores in language achievement (word reading and reading comprehension) of residual sighted girls in special and integrated schools are 26.59 and 27.12 respectively

The calculated 't' value is not significant at any level of confidence. Therefore, null hypothesis is accepted which implies that the two group of children studying in special and integrated settings stands on



similar footing

In the case of residual sighted girls, studying in special and integrated settings are related to their interest, motivation and learning

**Hypothesis** States that there is no difference in the class V Mathematics Achievement of children with Residual sight and Normal sight studying in special and Integrated settings.

In order to test this hypothesis the investigator applied 't' test to ascertain the extent to which different groups of children have learnt Mathematics.

#### **Mathematics Achievement Class V**

To assess the achievement of class V children in Mathematics test comprising 40 items related to number Addition Subtraction, Multiplication weights and Measures, Fraction and Geometry was administered to 400 children, Details of the type of items is given below.



Table 3.30.

## Class V Mathematics Test Profile

S No	Area	Items
1	Number	2
2	Place value	2
3	Addition	2
4	Subtraction	3
5.	Addition and subtraction	4
6	Multiplication	1
7.	Division	6
8.	Multiplication + addition	6
9.	Weights and Measures	6
10	Time and Period	3
11.	Fraction	3
12.	Geometry/Shapes	2
	Total	40

The mean achievement scores of sample of the class V children with Residual sight and Normal sight studying in special and integrated settings are given below





Table 3.31.

Mean Achievement scores of class V children in Mathematics

Subjects	N	Mean	SD	't' value
Residual sighted children	200	39.02	15.10	3.96*
Normal sighted children	200	59.4	16.70	

\* Value is significant.

It is evident from Table 3.31 that the mean achievement scores in mathematics of residual sighted children and normal sighted children are 39.02 and 59.4 respectively. The 't' value of 3.96 in respect of difference in mean scores is significant at .01 level of confidence. The mean achievement score of sighted children in mathematics is significantly higher than that of residual sighted children. Therefore, null hypothesis with regard to achievement in mathematics that there is no significant difference between residual sighted and normal sighted children stands rejected.

It is obvious that the achievement level in mathematics of sighted children is higher than that of residual sighted children. Sighted children do get more opportunities for self study, experimentation, discussion and personal development. That is why they show higher achievement which is the result of self study and intensive practice.



**Table 3.32.**

**Mean Achievement scores of class V children in mathematics**

Subjects	N	Mean	SD	't' value
Residual sighted boys	100	29.7	1.41	4.10*
Residual sighted girls	100	20.7	1.25	

\* Significant at 01 level.

Table 3.32 reveals that mean achievement score in mathematics of residual sighted boys and residual sighted girls are 29.7 and 20.7 respectively. The 't' value in respect of difference in mean scores is significant at 01 level of confidence. Therefore, null hypothesis that with regard to mathematics achievement, there is no difference between residual sighted boys and residual sighted girls is rejected. The residual boys have performed better than residual girls.

**Table 3.33.**

**Mean Achievement scores of class V children in Mathematics**

**(School wise)**

Subjects	N	Mean	SD	't' value
Residual sighted boys in special schools	50	21.97	1.31	4.92*
Residual sighted boys in integrated schools.	50	27.8	1.42	

\* significant at 01 level.



It is observed from Table 3 33. that mean achievement scores in Mathematics of residual boys studying in special and integrated settings are 21 97 and 27 8 respectively

The 't' value in respect of difference in mean scores is significant at 01 level of confidence Therefore, null hypothesis that there is no difference between residual sighted boys studying in special and integrated schools stands rejected The residual boys studying in integrated settings get more opportunities to interact and discuss with sighted pupils, while residual sighted boys studying in special schools are provided custodial care but out of school experience is very limited for them.

**Table 3.34.**

**Mean Achievement scores of class V children in Mathematics**  
(School wise)

Subjects	N	Mean	SD	't' value
Residual sighted girls in special schools	50	26 59	1.59	1.64*
Residual sighted girls in integrated schools	50	27 49	1 49	

\* Value not significant.

Table 3 34 indicates that mean achievement scores in mathematics of residual sighted girls studying and integrated settings are 26.59 and 27 49 respectively



The calculated 't' value in respect of difference in mean scores of residual girls studying in special and integrated settings on mathematics is 1.64 which is not significant at any level of confidence. Therefore, null hypothesis is accepted which implies that the residual sighted girls studying in special and integrated settings stand on similar footing.

This implies that the achievement level of Mathematics, in the case of residual sighted girls, studying in special and integrated settings are related to their interest, understanding, motivation and learning. So an understanding of the students' achievement level in mathematics at this stage will be a great interest to teachers.

#### **RELATIONSHIP OF ACADEMIC ACHIEVEMENT AND SOCIO ECONOMIC STATUS**

One of the objectives of the present study was to find out the relationship, if any, between academic achievement i.e. Language and Mathematics and socio economic status of children with Residual Sight and Normal sight. To achieve this objective the following hypothesis was formulated.

Hypothesis states that there is no significant relationship in achievement of Children with Residual sight and Normal Sight belonging to different socio economic status groups.





To test this hypothesis, Pearson's Product moment coefficients of correlation between the achievement scores and socio-economic status (SES) scores of children of nine categories i.e. children with Residual Sight and Normal Sight, Residual Sighted children including boys and girls, Normal Sighted children including boys and girls, Residual Sighted boys, Normal Sighted boys, Residual sighted girls, normal sighteds girls Residual Sighted children in special schools and Residual sighted children integrated schools with their socio-economic status groups were calculated

**Table 3.35**  
**Coefficient of Correlation (r) between Achievement**  
**in Class II Language and Socio-Economic Status**

S No	Categories of students	Coefficient of correlation
1	All children with Residual Sight and Normal Sight N=400	0.84
2	Residual Sighted Children (Boys and Girls) N=200	0.56
3	Normal Sighted Children (Boys and Girls) N=200	0.58
4	Residual Sighted Boys N=100	0.44
5	Normal Sighted Boys N=100	0.57
6.	Residual Sighted Girls N=100	0.19



7	Normal Sighted Girls N=100	0 30
8	Residual Sighted Children in Special School N=100	0 19
9	Residual Sighted Children in Integrated School N=100	0 46

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Value (r)      Significant at  
                     05 level are 0 18 to 0 21  
                     01 level are 0.22 to above

1. Table 3.35 reveals that there is significant relationship between achievement on Class II language and socio-economic status of the children with Residual Sight and Normal Sight

The coefficient of correlation (0.84) is high and positive. This implies that a child's achievement in language goes along with his Socio-economics status. The children with higher socio-economic status shall generally have higher achievement in language and vice versa.

2. There is significant relationship between achievement in Class II language and socio-economic status of Residual Sighted Children including boys and girls.

The coefficient of correlation (0.56) is high and positive. This implies that a child's achievement in language goes along with his socio-economic status. The children with high socio-economic status generally



have higher achievement in language

- 3 There is significant relationship between achievement in Class II language and socio-economic status of Normal Sighted Children including boys and girls

The coefficient of correlation (0.58) is highly positive. This implies that a child's achievement in language goes along with his socio-economic status. The children with higher socio-economic status shall have higher achievement in language.

- 4 There is significant relationship between achievement in Class II language and socio-economic status of the Residual Sighted Boys.

The coefficient of correlation (0.44) is high and positive. This reveals that a children achievement in language goes along with his socio-economic status. The children with higher socio-economic status shall have higher achievement in language.

- 5 There is significant relationship between achievement in Class II language and socio-economic status of the Normal Sighted Boys.

The coefficient of correlation (0.57) is high positive. This implies that a children achievement in language goes along with his socio-economic status. The children with higher socio-economic status shall have



higher achievement in language

- 6 There is significant relationship between achievement in Class II language and socio-economic status of the Residual Sighted Girls

The coefficient of correlation (0.19) is low positive. This reveals that child's achievement goes along with his socio-economic status. The children with middle socio-economic status shall have lower achievement in language.

- 7 There is significant relationship between achievement in Class II language and socio-economic status of the Normal Sighted Girls

The coefficient of correlation (0.30) is moderate positive. This implies that a child's achievement goes along with his socio-economic status. The children with middle socio-economic status shall have middle achievement in language.

8. There is significant relationship between achievement in Class II language and socio-economic status as the Residual Sighted children studying in special schools.

The coefficient of correlation (0.19) is low positive. This implies that child's achievement goes along with his socio-economic status. The children with lower socio-economic status shall generally have lower





achievement in language

9. There is significant relationship between achievement in Class II language and socio-economic status of the Residual Sighted Children studying in integrated schools

The coefficient of correlation (0.46) is high positive. This implies that child's achievement goes along with his socio-economic status. The children with higher socio-economic status shall generally have higher achievement in language.

This may be due to the fact that socio-economic status of the pupils significantly influences their achievement. Upper socio-economic status pupils high scores while low achievers are from low socio-economic status.

The above Table 3.35 reveals that in the case of residual sighted children and normal sighted children in the total sample there is significant positive correlation between achievement in language and socio-economic status. It is also true such as residual sighted boys and normal sighted boys. However, in the case of residual boys and residual girls, coefficient of correlation, though positive and significant is not as high as it is in the case of normal sighted boys and girls. This may be due to the fact that partial sight proves as a stumbling block in spite of better socio-economic status. Likewise, coefficient of correlation between achievement and socio-economic status in the case of children's achievement



and socio-economics status in the case of children studying in special school is less than the coefficient of correlation in the case of children in integrated school. This implies that residual sight reduces the effect of socio-economics status if they study in special schools

**Table 3.36**

**Coefficient of Correlation (r) between Achievement  
in Class II Mathematics and Socio-Economic Status.**

S No.	Categories of students	Coefficient of correlation
1.	All children with Residual Sight and Normal Sight N=400	<b>0.70</b>
2	Residual Sighted Children (Boys and Girls) N=200	<b>0.58</b>
3	Normal Sighted Children (Boys and Girls) N=200	<b>0.68</b>
4.	Residual Sighted Boys N=100	<b>0.51</b>
5.	Normal Sighted Boys N=100	<b>0.69</b>
6	Residual Sighted Girls N=100	<b>0.20</b>
7	Normal Sighted Girls N=100	<b>0.32</b>
8	Residual sighted Children in Special School N=100	<b>0.28</b>
9	Residual sighted Children in Integrated School N=100	<b>0.69</b>



Value (r)            Significant at  
                          05 level are 0.18 to 0.21  
                          01 level are 0.22 to above

- 1     Table 3.36 reveals that there is significant relationship between achievement in Class II Mathematics and socio-economic status of the children with Residual Sight and Normal Sight

The coefficient correlation (0.70) is high positive. This implies that a child's achievement in mathematics goes along with his socio-economic status. The children with higher socio-economic status shall generally have higher achievement in Mathematics and vice versa.

- 2     There is significant relationship between achievement in Class II Mathematics and socio-economic status of Residual Sighted Children including boys and girls

The coefficient correlation (0.58) is high positive. The reveals that a child's achievement in Mathematics goes along with his socio-economic status. The children with higher socio-economic status shall have higher achievement in Mathematics

3.    There is significant relationship between achievement in Class II Mathematics and socio economic status of Normal Sighted Children including boys and girls



The coefficient correlation (0.67) is high positive. This implies that a child's achievement in Mathematics goes along with his socio economic status. The children with higher socio-economic status shall have higher achievement in Mathematics and vice versa.

4. There is significant relationship between achievement in Class II Mathematics and socio economic status of the Residual Sighted boys.

The coefficient correlation (0.51) is positive. This reveals that a child's achievement in mathematics goes along with his socio economic status. The children with higher socio-economic status shall have higher achievement in Mathematics.

5. There is significant relationship between achievement in Class II Mathematics and socio economic status of Normal Sighted boys.

The coefficient of correlation (0.68) is high positive. This indicates that a child's achievement in Mathematics goes along with his socio economic status. The children with higher socio economic status shall generally have higher achievement in Mathematics and vice versa.

6. There is significant relationship between achievement in Class II Mathematics and socio economic status of Residual Sighted Girls.

The coefficient correlation (0.19) is low positive. This indicates





the child's achievement in Mathematics goes along with his socio economic status. The children with lower socio economic status shall have lower achievement in Mathematics.

- 7 There is significant relationship between achievement in Class II Mathematics and socio economic status of Normal Sighted girls.

The coefficient correlation (0.32) is moderate positive. This implies that a child's achievement in Mathematics goes along with his socio economic status. The children with middle socio economic status shall have moderate achievement in Mathematics and vice versa.

- 8 There is significant relationship between achievement in Class II Mathematics and socio economic status of Residual Sighted Children studying in special schools.

The coefficient correlation (0.18) is low positive. This indicates that a child's achievement in mathematics goes along with his socio economic status. The children with lower socio economic status shall have lower achievement in Mathematics and vice versa.

- 9 There is significant relationship between achievement in Class II mathematics and socio economic status of the Residual Sighted Children studying in integrated schools.



The coefficient correlation (0.68) is high positive. This implies that a child's achievement in mathematics goes along with his socio economic status. The children with higher socio economic status shall generally have higher achievement in Mathematics

This may be due to the fact that socio economic status of the children significantly influence their achievement. Upper socio economic status pupils achieve high scores while low achieves are from low socio economic status

The above Table 3.36 reveals that in the case of residual sighted children and normal sighted children in the total sample there is significant positive correlation between achievement in mathematics and socio-economic status. It is true in the case of other categories of children such as residual sighted boys and normal sighted boys, Coefficient of correlation though positive and significant of as high as it is in the case of normal sighted boys and girls. This may be due to the fact that partial sight proves a handicap inspite of better socio-economic status. Like wise, coefficient of correlation between achievement in mathematics like language and socio economic status in the case of children studying in special school is less than the coefficient of correlation in the case of children studying in integrated schools.

This implies that residual sight reduces the effect of socio-economic status if children study in special schools



**Table 3.37**  
**Coefficient of Correlation (r) between Achievement**  
**in Class V language and Socio-Economic Status.**

S.No	Categories of students	Coefficient of correlation
1	All children with Residual Sight and Normal Sight N=400	0.78
2.	Residual Sighted Children (Boys and Girls) N=200	0.68
3.	Normal Sighted Children (Boys and Girls) N=200	0.89
4.	Residual Sighted Boys. N=100	0.54
5	Normal Sighted Boys N=100	0.69
6	Residual Sighted Girls N=100	0.27
7.	Normal Sighted Girls N=100	0.22
8.	Residual sighted Children in Special School N=100	0.66
9.	Residual sighted Children in Integrated School N=100	0.84

Value (r)      Significant at  
 .05 level are 0.18 to 0.21.  
 .01 level are 0.22 to above



- 1 Table 3 37 reveals that there is significant relation between achievement on Class V language and socio-economic status of the children with Residual Sight and Normal Sight

The coefficient of correlation (0.78) is high and positive. This implies that a child's achievement in language goes along with his socio economic status. The children with higher socio economic status shall generally have higher achievement in language and vice versa.

- 2 There is significant relationship between achievement in Class V language and socio-economic status of Residual Sighted Children including boys and girls

The coefficient of correlation (0.68) is high and positive. This indicates that a child's achievement in language goes along with his socio economic status. The children with high socio economic status generally have higher achievement in language.

- 3 There is significant relationship between achievement in Class V language and socio-economic status of Normal Sighted Children including boys and girls

The coefficient of correlation (0.89) is high and positive. This implies that a child's achievement in language goes along with his socio economic status. The children with higher socio economic status shall have higher achievement in language and vice versa.





- 4 There is significant relationship between achievement in Class V language and socio-economic status of the Residual Sighted Boys

The coefficient of correlation (0.54) is high and positive. This implies that a child's achievement in language goes along with his socio-economic status. The children with higher socio-economic status shall have higher achievement in language.

- 5 There is significant relationship between achievement in Class V language and socio-economic status of the Normal Sighted Boys

The coefficient of correlation (0.69) is high and positive. This implies that a child's achievement in language goes along with his socio-economic status. The children with higher socio-economic status shall have higher achievement in language.

- 6 There is significant relationship between achievement in Class V language and socio-economic status of the Residual Sighted Girls

The coefficient of correlation (0.27) is moderate positive. This implies that child's achievement in language goes along with his socio-economic status. The children with moderate socio-economic status shall have middle achievement in language and vice versa.

- 7 There is significant relationship between achievement in Class V



language and socio-economic status of the Normal Sighted Girls

The coefficient of correlation (0.22) is low positive. This implies that a child's achievement in language goes along with his socio-economic status. The children with lower socio-economic status shall have lower achievement in language.

8. There is significant relationship between achievement in Class V language and socio-economic status as the Residual Sighted children studying in special schools.

The coefficient of correlation (0.66) is high and positive. This reveals that child's achievement in language goes along with his socio-economic status. The children with lower socio economic status shall have lower achievement in language.

9. There is significant relationship between achievement in Class V language and socio-economic status of the Residual Sighted Children studying in integrated settings.

The coefficient correlation (0.84) is high and positive. The reveals that a child's achievement in language goes along with his socio economic status. The children with higher socio economic status shall generally have higher achievement in language and vice versa.



This may be due to the fact that socio economic status of the pupils significantly influences their achievement , upper socio economic status pupil high scores while low achiever are from low socio economic status

The above Table 3 37 indicates that in the case of total sample residual sighted children and normal sighted children there is positive significant correlation between class V children's achievement in language and their socio-economic status It is true in the case of other categories of children such as residual sighted boys and girls as well as normal sighted boys and girls

However, in the case of residual boys and residual girls coefficient of correlation though positive and significant is not as high as it is in the case of normal sighted boys and girls This may be due to the fact that partial sight proves a handicap inspite of better socio-economic status Like wise, coefficient of correlation between achievement and socio economic status and achievement in language in the case of class V children studying in special school is less than the coefficient as correlation in the case of class V children studying in integrated schools This implies that residual sight reduces the effect of socio economic status if they study in special schools



Table 3.38  
Coefficient of Correlation (r) between Achievement  
in Class V Mathematics and Socio-Economic Status.

S No	Categories of students	Coefficient of correlation
1	All children with Residual Sight and Normal Sight N=400	0.86
2	Residual Sighted Children (Boys and Girls) N=200	0.67
3	Normal Sighted Children (Boys and Girls) N=200	0.87
4	Residual Sighted Boys N=100	0.65
5	Normal Sighted Boys N=100	0.73
6	Residual Sighted Girls N=100	0.29
7	Normal Sighted Girls N=100	0.54
8	Residual sighted Children in Special School N=100	0.70
9	Residual sighted Children in Integrated School N=100	0.87

Value (r)      Significant at  
                          .05 level are 0.18 to 0.21  
                          0.01 level are 0.22 to above





- 1 Table 3.38 reveals that there is significant relationship between achievement on Class V Mathematics and socio-economic status of the children with Residual Sight and Normal Sight

The coefficient of correlation (0.86) is high and positive. This implies that a child's achievement in Mathematics goes along with his socio economic status. The children with higher socio economic status shall generally have higher achievement in mathematics and vice versa.

- 2 There is significant relationship between achievement in Class V mathematics and socio-economic status of Residual Sighted Children including boys and girls.

The coefficient correlation (0.67) is high and positive. This indicates that a child's achievement in mathematics goes along with his socio economic status. The children with higher socio economic status shall generally have higher achievement in mathematics and vice versa.

- 3 There is significant relationship between achievement in Class V mathematics and socio economic status of Normal Sighted Children including boys and girls.

The coefficient correlation (0.87) is high and positive. This indicates that a child's achievement in mathematics goes along with his socio economic status. The children with higher socio economic status



shall have higher achievement in mathematics and vice versa

- 4 There is significant relationship between achievement in Class V mathematics and socio economic status of Residual Sighted Boys

The coefficient correlation (0.65) is high and positive. This reveals that a child's achievement in language goes along with his socio economic status. The children with higher socio economic status shall generally have higher achievement in mathematics and vice versa.

- 5 There is significant relationship between achievement in Class V mathematics and socio economic status of Normal Sighted Boys

The coefficient correlation (0.73) is high and positive. This implies that a child's achievement in language goes along with his socio economic status. The children with higher socio economic status shall have higher achievement in mathematics.

- 6 There is significant relationship between achievement in Class V mathematics and socio economic status of Residual Sighted Girls

The coefficient correlation (0.27) is moderate positive. This implies that a child's achievement in mathematics goes along with his socio economic status. The children with middle socio economic status shall have middle achievement in mathematics.



- 7 There is significant relationship between achievement in Class V mathematics and socio economic status of the Normal Sighted Girls

The coefficient correlation (0.54) is high & positive. This reveals that a child's achievement in mathematics goes along with his socio economic status. The children with high socio economic status shall have higher achievement in mathematics.

- 8 There is significant relationship between achievement in Class V mathematics and socio economic status of Residual Children Studying in Special Schools

The coefficient correlation (0.70) is high and positive. This implies that a child's achievement in mathematics goes along with his socio economic status. The children with his socio economic status shall generally have higher achievement in mathematics and vice versa.

- 9 There is significant relationship between achievement in Class V mathematics and socio economic status of Residual Sighted Children studying in integrated schools

The coefficient correlation (0.87) is high and positive. This reveals that a child's achievement in mathematics goes along with his socio economic status. The children with higher socio economic status shall generally have higher achievement in mathematics and vice versa.



This may be due to the fact that socio-economics status of the pupils significantly influences their achievement. Upper socio-economic status pupils high scores while low achievers are from low socio-economics.

The above Table 3.38 reveals that in the case of total sample, residual sighted children and normal sighted children there is positive significant correlation between achievement in mathematics and socio-economic status. It is true in the case of other categories of children such as residual sighted boys, normal sighted boys.

However, in the case of residual boys and residual girls coefficient of correlation, though positive significant, is not as high as it is in the case of normal sighted boys and girls. This may be due to the fact that partial sight proves a stumbling block in spite of better socio-economics status. Likewise, coefficient of correlation between achievement and socio-economics status in the case of children studying in special schools is less than the coefficient of correlation in the case of children studying in integrated schools. This implies that residual sight reduces the effect of socio-economic status if they study in special school.





## CHAPTER - IV

# FINDINGS, CONCLUSIONS AND IMPLICATIONS

### 1 Findings

The major findings of the study are as under

#### Cognitive styles of Children with Residual sight and Normal sight

- Children with Residual sight have flexible cognitive style whereas children with normal sight have non-flexible cognitive style
- Children with Residual sight prefer individualistic cognitive style in comparison to the children with normal sight who prefer non-individualistic cognitive style
- Children with Residual sight give greater preference to field independent cognitive style while children with normal sight prefer field-dependent cognitive style
- Children with Residual sight possess environment oriented cognitive style whereas children with normal sight have preference for environment free cognitive style.
- Children with Residual sight and children with normal sight have equal preference for visual and aural cognitive style



- Children with Residual sight and children with normal sight have equal preference for short attention span and long attention span cognitive style
- Children with Residual sight and children with normal sight have equal preference for motivation centred and motivation non centred cognitive style

### **Cognitive Styles of Children with Residual sight and Normal sight studying in Special and Interated Settings.**

- Residual sighted boys prefer flexibility cognitive style in comparison to the Residual sighted girls.
- Residual sighted boys prefer individualistic cognitive style as compared to the Residual sighted girls, who exhibit preference for non-individualistic cognitive style
- Residual sighted boys prefer field-independent cognitive style, while Residual girls prefer field-dependent cognitive style.
- Residual sighted boys prefer environment oriented cognitive style whereas Residual sighted girls prefer environment free cognitive style



- Residual sighted boys and Residual sighted girls prefer visual Vs Rural cognitive style equally
- Residual sighted boys and Residual sighted girls prefer short attention span Vs long attention span cognitive style equally
- Residual sighted boys and Residual sighted girls prefer motivation centred and motivation non centred cognitive style equally

**Achievement in Language class II Children with Residual sight and Normal sight Studying in Special and Integrated Settings.**

- The mean achievement score in class II language (letter reading and word reading) of children with Normal sight is significantly higher than that of children with Residual sight
- Mean achievement score in class II language of Residual sighted boys is significantly higher than that of Residual sighted girls
- Mean achievement scores of class II language of Residual sighted boys studying in integrated settings is higher than that of Residual sighted boys studying in special schools
- Mean achievement score in class II language of Residual sighted girls studying in integrated schools is significantly higher than



that of Residual sighted girls studying in special schools

### **Achievement in Mathematics class II Children with Residual sight and Normal sight Studying in Special and Integrated Settings.**

Mean achievement scores in mathematics of class II children with normal sight is significantly higher than that of children with Residual sight

Mean achievement scores in mathematics of class II boys with Residual sight is significantly higher than of girls with Residual sight

Mean achievement scores in mathematics of class II boys with Residual sight studying in integrated settings is significantly higher than that of boys studying in special school

In mathematics there is no significant difference in the achievement of class II girls with Residual sight studying in special schools and integrated settings

### **Achievement in Language Class V Children with Residual sight and Normal sight Studying in Special and Integrated Settings.**

The mean achievement score in class V language (letter reading and





word reading) of children with normal sight is significantly higher than that of children with Residual sight

- Mean achievement score in class V language of Residual sighted boys is significantly higher than that of Residual sighted girls
- Mean achievement scores of class V language of Residual sighted boys studying in integrated settings is higher than that of Residual sighted boys studying in special schools.
- Mean achievement score in class V language of Residual sighted girls studying in integrated schools is significantly higher than that of Residual sighted girls studying in special schools

#### **Achievement in Mathematics Class V Children with Residual sight and Normal sight Studying in special and Integrated Settings.**

- Mean achievement scores in mathematics of class V children with normal sight is significantly higher than that of children with Residual sight
- Mean achievement scores in mathematics of class V children with normal sight is significantly higher than that of children with Residual sight



- Mean achievement scores in mathematics of class V boys with Residual sight is significantly higher than that of boys studying in integrated schools
- In mathematics, there is no significant difference in the achievement of class V girls with Residual sight studying in special and integrated settings

**Relationship between Achievement of Different Categories of Students in Class II Language and Socio-Economic Status.**

- There exists high positive relationship between language achievement and socio economic status of children with Residual Sight and Normal Sight
- There exists high positive relationship between language achievement and socio-economic status of Residual Sighted children including boys and girls
- There exists high positive relationship between language achievement and socio-economic status of Normal Sighted children including boys and girls
- There exists high positive relationship between language achievement and socio-economic status of Residual Sighted boys.



There exists high positive relationship between language achievement and socio-economic status of Normal sighted boys

There exists positive relationship between language achievement and socio-economic status of Residual Sighted girls

There exists high positive relationship between language achievement and socio-economic status of Normal Sighted girls

There exists positive relationship between language achievement and socio-economic status of Residual children in special school

There exists high positive relationship between language achievement and socio-economic status of Residual Sighted children in integrated schools

### **Relationship between Achievement of different Categories of Students in Class II Mathematics and Socio-Economic Status.**

There exists high positive relationship between Mathematics achievement and socio-economic status of children with Residual Sight and Normal Sight

There exists high positive relationship between Mathematics achievement and socio-economic status of Residual Sighted children



including boys and girls

There exists high positive relationship between Mathematics achievement and socio-economic status of Normal Sighted children including boys and girls

There exists high positive relationship between Mathematics achievement and socio-economic status of Residual Sighted boys

There exists high positive relationship between Mathematics achievement and socio-economic status of Normal Sighted girls

There exists high positive relationship between Mathematics achievement and socio-economic status of Residual Sighted girls

There exists high positive relationship between Mathematics achievement and socio-economic status of Normal Sighted girls

There exists high positive relationship between Mathematics achievement and socio-economic status of Residual Sighted children in special school

There exists high positive relationship between Mathematics achievement and socio-economic status of Residual Sighted children in integrated schools





## Relationship between Achievement of Different Categories of Students in Class V Language and Socio-Economic Status.

There exists high positive relationship language achievement and socio-economic status of children with Residual Sight and Normal Sight.

There exists high positive relationship language achievement and socio-economic status of children with Residual Sight including boys and girls

There exists high positive relationship language achievement and socio-economic status of Normal Sighted children including boys and girls.

There exists high positive relationship language achievement and socio-economic status of Residual Sighted boys.

There exists high positive relationship language achievement and socio-economic status of Normal Sighted boys.

There exists high positive relationship language achievement and socio-economic status of Residual Sighted girls.

There exists high positive relationship language achievement and



socio-economic status of Normal Sighted girls

There exists high positive relationship language achievement and socio-economic status of Residual Sighted children in special schools

There exists high positive relationship language achievement and socio-economic status of Residual Sighted in integrated schools

**Relationship between Achievement of Different Categories of Students on Class V Mathematics and Socio Economic Status.**

There exists high positive relationship between Mathematics achievement and socio-economic status of children with Residual Sight and Normal Sight

There exists high positive relationship between Mathematics achievement and socio-economic status of Residual Sighted children including boys and girls

There exists high positive relationship between Mathematics achievement and socio-economic status of Normal Sighted children including boys and girls.

There exists high positive relationship between Mathematics



achievement and socio-economic status of Residual Sighted boys

There exists high positive relationship between Mathematics achievement and socio-economic status of Normal Sighted boys

There exists high positive relationship between Mathematics achievement and socio-economic status of Residual Sighted girls

There exists high positive relationship between Mathematics achievement and socio-economic status of Normal Sighted girls

There exists high positive relationship between Mathematics achievement and socio-economic status of Residual Sighted children in special schools

There exists high positive relationship between Mathematics achievement and socio-economic status of Residual Sighted children in integrated schools.

## CONCLUSIONS

From the above finding the following conclusion can be drawn.

1. Residual sighted children have preferences for flexible, Individualistic, field independent and environment oriented cognitive style, while normal sighted children have preference for



non flexible, non individualistic, field dependent and environment free cognitive style. The two groups do not differ from each other in the case of visual vs aural, short attention span vs long attention span and motivation centred vs non-motivation centred cognitive style.

- 2 Residual sighted boys have preference for flexible, individualistic, field independent and environment oriented cognitive style as compared to the residual sighted girls who exhibit preference for non flexible, non individualistic, field dependent and environment free cognitive style. The two groups i.e. Residual sighted boys and Residual sighted girls do not differ on visual vs Aural, short attention span vs long attention span and motivation centred and non-motivation centred cognitive style.
- 3 Like normal sighted children, socio economic status of the residual sighted pupils significantly influences their achievement in language and Mathematics. Upper socio economic status pupils achieve high scores in Mathematics and language while low achievers are from low socio economic status groups. However, coefficient of correlation between socio-economics status and achievement in both language and Mathematics is higher in the case of children studying in integrated schools than the children studying in special schools.
- 4 Residual sighted children studying in integrated schools do better than children studying in special schools in language and Mathematics.





### Implications:

The analysis of data has brought out several important findings which have a variety of implications for planning and designing intervention strategies for educating children with residual sight

- 1 The results of the study indicate that most of the Residual sighted students possess a flexible, field independent, individualistic and environment oriented cognitive styles Whereas normal sighted children have preference for non flexible, non individualistic, field dependent and environment free cognitive styles

Teachers teaching different subjects in lower classes will have to make deliberate efforts to design their teaching in line with the cognitive styles of residual sighted children

- 2 In language children could read letters better than words. However, in this regard the performance of girls was lower than the performance of boys and twenty to forty percent pupils could not read even a single word correctly Residual sighted children had difficulties with more complex letters and words beginning and ending with 'matra' A similar trend was reflected in the poor performance seen in class V achievement scores in both language and Mathematics Low reading comprehension is a matter that majority of the residual students reported that they had not been provided any aids and appliances or large print material in classes Most of the residual



students could not read and did not understand what they read

This indicates the ineffective use of material by teacher in the class, once again pointing out the urgent need of imparting teaching to teachers working in integrated settings in the proper use of materials so as to eliminate learning by 'Rote'

- 3 The results of the present study may help the curriculum developer to think about the possible changes in the present curriculum keeping in view the cognitive styles of children
- 4 It is surprising to see that large difference exists between residual sighted children studying in special and integrated setting. The least restrictive environment of integrated setting is a vital factor for the development of residual sighted children in academic and non-academic areas, special schools children are missing the interaction with sighted peer groups and normal world experience, special schools provide twenty four hours custodial care and the out of the school experience is very limited for these children and sighted peers can not frequently be brought to the special schools for tutoring reader service. The residual sighted children could also be allowed to go out with his/her sighted companion for a specific period of time in a day or a week. So that he/she could enrich normal world experience which might help interaction.



Apart from this kind of activities would help the children with residual sighted and Normal sighted children to understand each other. The teachers and school authorities should make necessary change for enriching the learning of children with special needs. The parents and other people who are concerned with man making process will be greatly enlightened by the results of the study.

5 The study has its major implication in the field of educational researchers. The review of literature given in this report shows that both the field of cognitive style and Achievement have great potentialities for further researchers. In foreign countries a lot of work has been done in this areas, but in India, little work has been done. The present study. It is hoped, will serve as a spring board for other studies in the area.

The present study has been an humble effort in taking one of the neglected sections of the society, namely education of the children with special needs. The investigator believes that the results of the study would stimulate thinking on the part of educators, planners and policy makers to devise constructive programmes for children with residual sight in order to enhance their learning.

The National Policy on Education (1986) and the centrally sponsored scheme of Integrated Education for the Disabled Children has Emphasised that education of children with special needs are to be looked upon as a



professional work rather than a charitable work. Research work in this area is a constructive endeavor rather than an intellectual exercise and workable suggestions, needs to be these for action rather than a discussion. Teachers and schools authorities should take note of this kind and make necessary changes for enhancing meaningful and joyful learning in children with special needs.





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## अभिगम शैली-सूची

छात्र का नाम-

कक्षा व विभाग-

विद्यालय का नाम-

निर्देश-

छात्रों में आपस में व्यावगत भेद पाए जाते हैं। इन्हीं व्यावगत भेदों के कारण प्रत्येक छात्र भिन्न प्रकार से सीखना पसंद करता है। इस सूची में कुछ कथन दिए गए हैं जो यह दर्शाते हैं कि एक छात्र किस प्रकार "सीखना" पसंद करता है। आप इनमें से प्रत्येक कथन को ध्यानपूर्वक पढ़िए और इस बात का फैसला कीजिए कि आप इनमें से किस-किस कथन से सहमत हैं और किस-किस से असहमत। यदि आप किसी कथन से सहमत व्यवक्त करते हैं तो "हाँ" पर सही का निशान § § लगाइए और यदि आप अपनी असहमति व्यवक्त करते हैं तो "नहीं" पर सही का निशान § § लगाइए।

कथन को पढ़ते ही आपके दिमाग में जो प्रथम प्रतिक्रिया हो वही आपका उत्तर होना चाहिए। "हाँ" या "नहीं" दोनों ही उत्तर सही हैं। अतः आप किसी भी कथन को उत्तर दिए बिना न छोड़ें। जितनी जल्दी हो सके आप उतनी जल्दी प्रत्येक कथन का उत्तर देने का प्रयास करें।



- 1 मुझे उन शैक्षिक कार्यों को करने में आनंद  
आता है जिन्हें अपने ढंग से करने की  
स्वतंत्रता होती है।  
हाँ § §, नहीं § §
- 2 सगी-साधियों के साथ पढ़ने में मुझे  
आनंद नहीं आता।  
हाँ § §, नहीं § §
- 3 लिखकर याद करने से मैं अपना पाठ  
ठीक प्रकार याद कर लेता हूँ।  
हाँ § §, नहीं § §
- 4 मैं उन शिक्षक का कार्य सबसे पहले करता हूँ  
जिसको करने में मुझको इसके द्वारा  
दिए गए नोट्स के अतिरिक्त अन्य किसी  
सहायता की आवश्यकता नहीं होती।  
हाँ § §, नहीं § §
- 5 मैं लगानार बैठकर किसी भी कार्य को  
पूरा नहीं कर पाता।  
हाँ § §, नहीं § §
- 6 विद्यालय में संतोषजनक शैक्षिक सामग्री  
उपलब्धी के उपरांत भी मुझे पोरवार से  
कोई प्रोत्साहन नहीं मिलता।  
हाँ § §, नहीं § §
- 7 पढ़ते समय आस-पास पूर्ण शांति  
होने पर ही एकाग्रचित होकर  
अध्ययन कर पाता हूँ।  
नहीं § §, नहीं § §
- 8 अध्यापन संबंधी विभिन्न बातों,  
विचारों, सूचनाओं इत्यादि को  
"सीखना" मुझे अच्छा नहीं लगता।  
हाँ § §, नहीं § §
- 9 अधिक शैक्षिक कार्यों को मैं प्रायः  
अकेला नहीं कर पाता।  
हाँ § §, नहीं § §



- 10 जो शिक्षक पढ़ाते समय दृश्य सहायक सामग्री का प्रयोग करते हैं मुझे अच्छे लगते हैं।  
हाँ § §, नहीं § §
- 11 थोपे गए शैक्षिक कार्यों को करने में मुझे असुविधा होती है।  
हाँ § §, नहीं § §
- 12 अधिक देर तक शैक्षिक कार्यों को करते रहने से मुझे मानसिक रूप से थकान महसूस होने लगती है।  
हाँ § §, नहीं § §
- 13 मेरी अध्ययनशीलता के कारण मेरे शिक्षक मुझसे अच्छे अंक प्राप्त करने की आशा रखते हैं।  
हाँ § §, नहीं § §
- 14 शैक्षिक कार्यों को करते समय मुझे तेज रोशनी की आवश्यकता होती है।  
हाँ § §, नहीं § §
- 15 मैं अपने सभी शैक्षिक कार्यों को विभिन्न ढंग से सोचने विचारने के पश्चात् ही करता हूँ।  
हाँ § §, नहीं § §
- 16 मुझे उन शैक्षिक कार्यों को करना अच्छा लगता है, जो समूह में किए जाते हैं।  
नहीं § §, नहीं § §
- 17 प्रयोगशाला में जिन कार्यों को मैं अध्यापक को करते हुए देखता हूँ उन्हें आसानी से सीख लेता हूँ।  
नहीं § §, नहीं § §
- 18 मैं केवल उतना ही शैक्षिक कार्य करता हूँ जितना कि शिक्षक द्वारा कक्षा में करने के लिए दिया जाता है।  
हाँ § §, नहीं § §
- 19 तम्वे समय में पूरे होने वाले शैक्षिक कार्यों को करने में मुझे कोई असुविधा नहीं होती।  
नहीं § §, नहीं § §



- 20 मैं हमेशा विषय-संबंधी ज्ञानवर्धक  
पुस्तकें पढ़ने के लिए उत्सुक  
रहता हूँ।  
हाँ § §, नहीं § §
- 21 . सर्दी के मौसम में पढ़ना मुझे  
कष्टदायक लगता है।  
हाँ § §, नहीं § §
- 22 किसी भी शैक्षिक समस्या के  
समाधान हेतु मैं विभिन्न  
जानकारी प्राप्त करने का  
प्रयास करता हूँ।  
नहीं § §, नहीं § §
- 23 मैं प्रायः अपने सहपाठियों के साथ  
ही अध्ययन करता हूँ।  
नहीं § §, नहीं § §
- 24 . मुझे उन विषयों में पढ़ना अच्छा नहीं  
लगता जिनमें चित्र बनाने या रंग  
भरने जैसे कार्य होते हैं।  
नहीं § §, नहीं § §
- 25 कक्षा में दी जाने वाली चुनौतीपूर्ण  
समस्याओं को अपने ढंग से हल करने  
में मुझे आनंद प्राप्त होता है।  
हाँ § §, नहीं § §
- 26 . अध्ययन करते समय बीच-बीच में  
उठकर कुछ खा लेने से मुझे पढ़ने के  
लिए नई स्फूर्ति प्राप्त होती है।  
हाँ § §, नहीं § §
- 27 मैं उन शैक्षिक कार्यों को करने के लिए  
सदैव तत्पर रहता हूँ जिनको सफलता-  
पूर्वक कर लेने पर किसी पुरस्कार  
की आशा होती है।  
हाँ § §, नहीं § §
- 28 . चारों ओर शोर होने पर भी  
मुझे अध्ययन करने में कोई  
काँठनाई नहीं होती।  
हाँ § §, नहीं § §





- 29 . मुझे वे शैक्षिक कार्य अच्छे लगते  
हैं जिनको केवल एक ही ढंग से  
हल किया जा सकता है।  
हाँ § § , नहीं § §
- 30 मैं अपने समस्त शैक्षिक कार्यों को  
स्वयं ही करता हूँ।  
नहीं § § , नहीं § §
- 31 यदि कोई पाठ मे बिना बोले  
याद करता हूँ तो वह मुझे  
शीघ्रता से याद हो जाता है।  
हाँ § § , नहीं § §
- 32 . शिक्षक कक्षा में जो कुछ पढ़ाता है  
उसे घर जाकर उसी प्रकार न  
दोहराने से मैं वह पाठ्यवस्तु  
भूल जाता हूँ।  
हाँ § § , नहीं § §
- 33 . अधिक समय तक अध्यापन करते  
रहने से मुझे परेशानी होने  
लगती है।  
हाँ § § , नहीं § §
- 34 . यथा संभव गृह कार्य पूरा करने  
पर मुझे अपने शिक्षकों से प्रशंसा  
प्राप्त होती है।  
हाँ § § , नहीं § §
- 35 ट्यूब लाइट की रोशनी में पढ़ना  
मुझे अधिक सुविधाजनक लगता है।  
हाँ § § , नहीं § §
- 36 विषय संबंधी विभिन्न पुस्तकों को  
पढ़ने में मुझे आनंद प्राप्त होता है।  
हाँ § § , नहीं § §
- 37 टीम में रहकर मैं अधिक कुशलता  
एवं शीघ्रता से कार्य नहीं  
कर पाता।  
हाँ § § , नहीं § §



- 38 मुझे वही पाठ्यपुस्तक याद रहती  
है, जिसे मैंने स्वयं पढ़ा होता है।  
हाँ § §, नहीं § §
- 39 विद्यालय में दी जाने वाली पाठ्य-  
वस्तु पर निर्भर रहने की अपेक्षा  
मैं अन्य स्रोतों से ज्ञान प्राप्त  
करने के लिए उत्सुक रहता हूँ।  
हाँ § §, नहीं § §
- 40 लम्बे समय में पूरे होने वाले शैक्षिक  
कार्यों को करते समय मुझे अपना  
ध्यान केंद्रित करने में असावधानी  
होती है।  
हाँ § §, नहीं § §
- 41 मैं प्रायः शैक्षिक कार्यों को विलम्ब/  
देरी से करता हूँ जिनको पूरा  
करने पर मुझे कोई प्रोत्साहन नहीं  
मिलता।  
हाँ § §, नहीं § §
- 42 गर्मी के मौसम में पढ़ने से मुझे बेचैनी  
होने लगती है।  
हाँ § §, नहीं § §
- 43 शैक्षिक कार्यों को एक ढंग से किया  
जाना ही मुझे पसंद है।  
हाँ § §, नहीं § §
- 44 विद्यालय में जो कार्य मैं सर्वोत्तम ढंग  
से करना चाहता हूँ, उन्हें मैं सह-  
पाठियों के साथ करता हूँ।  
हाँ § §, नहीं § §
- 45 व्याख्यान विधि से पढ़ाने वाले  
शिक्षक मुझे पसंद नहीं हैं।  
हाँ § §, नहीं § §
- 46 मुझे वह विषय ज्यादा पसंद है  
जिनमें स्वयं कुछ करने को होता  
है।  
हाँ § §, नहीं § §



- 47 . किसी भी कार्य को छोटे-छोटे  
टुकड़ों में बाँटकर उन्हें पूरा करना  
मुझे पसंद नहीं है।  
हाँ § §, नहीं § §
- 48 जटिल शैक्षिक समस्याओं को हल  
करने में मुझे परेशानी महसूस  
होती है।  
हाँ § §, नहीं § §
- 49 लैम्प की रोशनी में पढ़ने से मुझे  
कोई असुविधा नहीं होती है।  
हाँ § §, नहीं § §
- 50 . वर्तमान कक्षा प्रणाली में पढ़ना  
मुझे पसंद नहीं है।  
हाँ § §, नहीं § §
- 51 स्वयं पढ़ते हुए मैं यह चाहता हूँ  
कि आस-पास कोई प्रोढ़ व्यावृत  
मोजूद हो।  
हाँ § §, नहीं § §
- 52 प्रयोग प्रदर्शन-वीडि से पढ़ना मुझे  
पसंद नहीं है।  
हाँ § §, नहीं § §
- 53 बिना किसी पर्यवेक्षण के मैं कार्यों को  
सही ढग से पूरा नहीं कर पाता।  
हाँ § §, नहीं § §
- 54 देर तक शैक्षिक कार्यों को करते समय  
मे बीच-बीच मे पानी, चाय, जूस  
इत्यादि पीता हूँ।  
हाँ § §, नहीं § §
- 55 . अपनी आकांक्षाओं से सवाधत  
शैक्षिक कार्यों को करने की प्रेरणा  
मुझ में सदेव ही बनी रहती है।  
हाँ § §, नहीं § §
- 56 . पढ़ते समय संगीत सुनने में मुझे  
ध्यान केन्द्रित करने में सुविधा  
रहती है।  
हाँ § §, नहीं § §



57 एक जैसे प्रश्नों को हल करने की एक  
से अधिक उपलब्ध विधियों को  
संख्यने के लिए मैं सदैव ही उत्सुक  
रहता हूँ।

हाँ § §, नहीं § §

58 शैक्षक कार्यों को मैं प्रायः सहपाठियों  
के साथ ही पूरा किया करता हूँ।

हाँ § § नहीं § §

59. यदि नवीन ज्ञान फिल्म या फिल्म  
स्ट्रिप द्वारा दिया जाए तो मैं  
आसानी से ग्रहण कर लेता हूँ।

हाँ § § नहीं § §

60. कक्षा में शिक्षक द्वारा विषय संबंधी  
जितना पढ़ाया जाता है उसके  
अतिरिक्त पढ़ने की आवश्यकता महसूस  
नहीं करता।

हाँ § § नहीं § §

61. अपना समस्त शैक्षिक कार्य पूरा कर  
लेने से पूर्व मैं अन्य कार्य जैसे खेलना,  
घूमना आदि नहीं करता।

हाँ § § नहीं § §

62. पढ़ते समय कोठनाई आने पर मैं  
उसे एक चुनौती के रूप में स्वीकार  
कर लेता हूँ।

हाँ § § नहीं § §

63. गर्मी के मौसम में पढ़ते समय भी  
मैं शांति से ध्यान केन्द्रित कर  
लेता हूँ।

हाँ § § नहीं § §





# ज़िला प्राथमिक शिक्षा कार्यक्रम (ज़ि.प्रा.शि.का.)

## आधारभूत मूल्यांकन अध्ययन

कक्षा 2 परीक्षण - गणित और भाषा

भाषा/गणित के लिए कोडिंग प्रपत्र

STATE CODE

DISTRICT CODE

BLOCK CODE

SCHOOL I D

STUDENT ID	NAME	AGE (in completed years)	SEX 1 Male 2 Female	CASTE 1 SC/ST 2 Others	ATTENDED PRE SCHOOL 1 YES 2 NO	CLASS REPETITION 1 YES 2 NO
01		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
02		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
03		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
04		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
05		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
06		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
07		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
08		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
09		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
10		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
11		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
12		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
13		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
14		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
16		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
17		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
18		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
19		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
20		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



अध्यापक शिक्षा व विशेष शिक्षा विभाग  
राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद  
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING  
1993



कक्षा - २

विषय - हिन्दी

नीचे लिखे अक्षरों एवं शब्दों को पढ़ो ।

- (क)
- |       |      |      |
|-------|------|------|
| १. ल  | २. य | ३. घ |
| ४. छ  | ५. ढ | ६. थ |
| ७. फ  | ८. ह | ९. झ |
| १०. औ |      |      |

- (ख)
- |          |            |
|----------|------------|
| ११. कलम  | १२. सड़क   |
| १३. सरला | १४. दूर    |
| १५. कुल  | १६. पिताजी |
| १७. ऐनक  | १८. पैर    |
| १९. कोस  | २०. और     |



કક્ષા - ૨

વિષય - ગણિત

પ્રશ્ન - ક      બड़ी સંખ્યા પર ઘેરા બનાઓ : (ઉદાહરણ देखો)

ઉદાહરણ .

૨	૫
---	---

(૧)

૩	૮
---	---

(૨)

૨૧	૧૨
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(૩)

૪૨	૩૮
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પ્રશ્ન - ય      છોટી સંખ્યા પર ઘેરા બનાઓ : (ઉદાહરણ देखો)

ઉદાહરણ :

૭	૪
---	---

(૪)

૧૨	૮
----	---

(૫)

૩૧	૧૩
----	----

(૬)

૩૪	૪૧
----	----

प्रश्न - ग जोड़ करो :

जैसे :  $३ + ४ = ७$

(७)  $४ + ५ = \dots\dots\dots$

(८)  $७ + ० = \dots\dots\dots$

(९)  $५ + ३ = \dots\dots\dots$

(१०)  $० + ६ = \dots\dots\dots$

प्रश्न - घ घटाओ :

जैसे :  $९ - ३ = ६$

(११)  $५ - २ = \dots\dots\dots$

(१२)  $८ - ८ = \dots\dots\dots$

(१३)  $६ - ४ = \dots\dots\dots$

(१४)  $७ - २ = \dots\dots\dots$

# ज़िला प्राथमिक शिक्षा कार्यक्रम (ज़ि.प्रा.शि.प.)

## आधारभूत मूल्यांकन अध्ययन

### कक्षा 5 परीक्षण - भाषा

Test Code	<input type="text" value="L"/>	1
State Code	<input type="text"/>	2
District Code	<input type="text"/> <input type="text"/>	3
Block Code	<input type="text"/>	5
School ID	<input type="text"/> <input type="text"/>	6
Student ID	<input type="text"/> <input type="text"/>	8
Test Status Code	<input type="text"/>	10
C - Complete A - Absent T - Terminated		

विद्यार्थी का नाम : \_\_\_\_\_

पिता/संरक्षक का नाम : \_\_\_\_\_

	घ	सि.	
परीक्षण प्रारम्भिक समय	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	11
परीक्षण समाप्ति समय	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	15
(मानक घण्टों का प्रयोग करें)			



अध्यापक शिक्षा व विशेष शिक्षा विभाग  
राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्  
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING  
1993-94





## शब्द-ज्ञान

इस परीक्षण में प्रत्येक पंक्ति में दो शब्द दिए हैं। पढ़कर सोचो कि इन दोनों शब्दों का अर्थ एक जैसा है या एक दूसरे से उलटा। यदि यह शब्द समानार्थक है तो “स” पर घेरा खींचो। यदि विपरीतार्थक है तो “वि” पर घेरा खींचो।

उदाहरण के लिये -

- |     |                |     |      |
|-----|----------------|-----|------|
| (क) | सुन्दर-खूबसूरत | (स) | वि   |
| (ख) | -- अन्दर-बाहर  | स   | (वि) |
| (ग) | काला-सफेद      | स   | (वि) |
| (घ) | सहमति-असहमति   | स   | (वि) |

सुन्दर और खूबसूरत का अर्थ लगभग एक जैसा है, इसलिए “स” पर घेरा खींचा गया है। “अन्दर” और “बाहर” का अर्थ एक दूसरे से उलटा है, इसलिए उसके आगे “वि” पर घेरा खींचा गया है। (ग) और (घ) में भी इसी आधार पर सही उत्तर पर घेरे खींचे गए हैं।

अब इसी प्रकार बाकी प्रश्न करो।



1.	भयंकर-डरावना	✓स	वि
2.	चाह-इच्छा	✓स	वि
3.	प्रकाश-अन्धेरा	स	✓वि
4.	सफल-कामयाब	✓स	वि
5.	डुबला-मोटा	स	✓वि
6.	देहान्त-जन्म	स	✓वि
7.	रिक्त-खाली	✓स	वि
8.	सम्पूर्ण-अधूरा	स	✓वि
9.	स्पष्ट-धुंधला	स	✓वि
10.	तृष्णा-प्यास	✓स	वि
11.	निश्चित-तय	✓स	वि
12.	भार्या-पत्नी	✓स	वि
13.	षडयन्त्र-कपटपूर्ण आयोजन	✓स	वि
14.	सम्मान-उपेक्षा	स	✓वि
15.	विनाश-निर्माण	स	✓वि
16.	निर्दयी-अत्याचारी	✓स	वि
17.	महान-तुच्छ	स	✓वि
18.	उचित-ठीक	✓स	वि
19.	ध्वज-झंडा	✓स	वि
20.	बदनाम-प्रसिद्ध	स	✓वि

21.	चौकस-लापरवाह	स	✓ वि
22.	परिचित-अनजान	स	✓ वि
23.	दायित्व-जिम्मेदारी	✓ स	वि
24.	व्यवस्था-प्रबन्ध	✓ स	वि
25.	परिश्रमी-आलसी	स	✓ वि
26.	निपुण-कुशल	✓ स	वि
27.	दुर्लभ-सामान्य	स	✓ वि
28.	कृपण-कंजूस	✓ स	वि
29.	परिस्थिति-हालत	✓ स	वि
30.	अवाक्-भौचक्का	✓ स	वि
31.	शीतल-उष्ण	स	✓ वि
32.	मंदबुद्धि-बुद्धिमान	स	✓ वि
33.	शिला-पाषाण	✓ स	वि
34.	अनावश्यक-जरूरी	स	✓ वि
35.	सक्षम-असमर्थ	स	✓ वि
36.	आकर्षण-खिंचाव	✓ स	वि
37.	सम्पन्न-गरीब	स	✓ वि
38.	प्रतिज्ञा-प्रण	✓ स	वि
39.	विक्रय-खरीदना	स	✓ वि
40.	खिन्न-प्रसन्न	स	✓ वि

## पठनबोध (अनुच्छेद)

इस परीक्षण में कुछ अनुच्छेद हैं और उन पर कुछ प्रश्न पूछे गए हैं। पहला अनुच्छेद पढ़कर उस पर पूछे प्रश्नों के उत्तर दो। फिर दूसरा अनुच्छेद पढ़ो और फिर तीसरा आदि जब तक तुम सारा परीक्षण समाप्त नहीं कर लेते।

प्रत्येक प्रश्न के चार सम्भव उत्तर दिए गए हैं। इनमें से सबसे अच्छा उत्तर चुनो और उसके अंक के चारों ओर घेरा खींचो।

जितनी बार तुम्हें अनुच्छेद पढ़ने की आवश्यकता जान पड़े, पढ़ो। प्रत्येक प्रश्न का उत्तर देने का यत्न करो। यदि तुम्हें किसी प्रश्न का उत्तर नहीं आता हो, उसे छोड़कर अगला प्रश्न करो। यदि समय बचे तो छोड़े हुए प्रश्न का उत्तर देने का फिर से यत्न करो।

### उदाहरण के लिए:-

बनिये ने सेठ से अपनी तराजू मागी तो सेठ ने कह दिया कि उसे तो चूहे खा गए। बनिया सेठ की बदनीयती साफ समझ गया और बोला, “कोई बात नहीं सेठ जी, आप अपने लड़के को मेरे घर तक भेज दीजिएगा, मैं परदेश से लाए हुए कुछ उपहार उसे दूंगा।” जब लड़का बनिये के घर आया तो उसने लड़के को छुपा दिया और शोर मचाने लगा, “बचाओ, बचाओ, सेठ के लड़के को चील उड़ाकर ले गई।”

क. बनिये ने सेठ के लड़के को क्यों छुपा दिया ?

- (1) वह सेठ को सबक सिखाना चाहता था।
- (2) वह चाहता था कि लड़के को भी चूहे खा जाए।
- (3) वह सेठ से मज़ाक करना चाहता था।
- (4) वह लड़के को डराकर तराजू का भेद पूछना चाहता था।

ख क्या तुम समझते हो कि-

- (1) तराजू चूहे सचमुच खा गये होंगे ।
- (2) तराजू सेठ से खो गई होगी ।
- (3) सेठ ने तराजू रख ली और झूठ बोल दिया कि तराजू चूहे खा गए ।
- (4) सेठ ने बनिये से मजाक किया था ।

प्रश्न (क) का शुद्ध उत्तर “1” है । इसका संकेत हमें अन्तिम वाक्य से मिलता है । तराजू को चूहे नहीं खा सकते और सड़के को चील उड़ाकर नहीं ले जा सकती । प्रश्न (ख) का शुद्ध उत्तर “3” है क्योंकि चूहे तराजू नहीं खा सकते । इसलिए प्रश्न (क) में “1” पर और प्रश्न (ख) में क्रमांक “3” पर घेरा खींचा गया है ।

दत्ता परिवार के यहा काली पूजा के अवसर पर नाटक खेलने के लिए एक अस्थायी रंगमंच बनाया जा रहा है। "मेघनाद वध" खेला जाएगा। इससे पहले गावो मे "जात्रा" तो मैंने कई बार देखी है पर नाटक देखने के अवसर अधिक नहीं मिले। दिन भर मैंने न खाना खाया और न ही आराम किया। रंगमंच बनाने का अवसर पाने से मेरी खुशी का ठिकाना न था।

यही नहीं जो राम की भूमिका खेलने जा रहा है स्वयं उसने मुझे एक रस्ती पकड़ने को कहा। अब तो मुझे ऐसा लगता है कि रिहर्सल के दौरान जब शामियानो की दरारो मे से अदर झाकते लड़को को लाठी से गोदा जाएगा तो मुझे कुछ नहीं कहा जाएगा। मेरे ऊपर श्री राम की कृपा जो है। यदि वह मुझे देख ले तो सम्भव है एकाध बार अन्दर भी बुला ले। मैंने कई बार "राम" का ध्यान खींचने का यत्न किया, मगर उसने मुझे नहीं पहचाना। रस्ती पकड़ने की आवश्यकता समाप्त हो चुकी थी।

1. किसके घर मे किस अवसर पर नाटक खेलने के लिए रंगमंच बनाया जा रहा था ?

(1) दत्ता के घर लक्ष्मी पूजा

(2) घोष के घर कालीपूजा

(3) दत्ता के घर कालीपूजा

(4) राम के घर कालीपूजा

2. लेखक को नाटक देखने के कितने अवसर मिले ?

(1) उसने एक भी नाटक नहीं देखा था।

(2) बहुत कम मौके मिले।

(3) कई मौके मिले।

(4) उसे नाटक देखने की इच्छा ही नहीं थी।

3. रंगमंच बनाने के लिए कहे जाने पर -

- ✓(1) लेखक खुश हुआ ।
- (2) उसे बुरा लगा ।
- (3) उसे क्रोध आया ।
- (4) उस पर कोई असर नहीं हुआ ।

4. तुम्हारे विचार में यह प्रसंग कौन बता रहा है?

- (1) एक भिखारी
- (2) एक वृद्ध आदमी
- (3) एक लड़का
- (4) एक शैतान बालक

5. उसे रस्सी पकड़ने को किसने कहा ?

- (1) जो रावण बना था
- (2) जो सीता बना था
- ✓(3) जो राम बना था
- (4) रंगमंच प्रबंधक ने

6. लेखक के अनुसार, वह किसकी वजह से मार खाने से बच जायेगा ?

- ✓(1) राम
- (2) मेघनाद
- (3) सीता
- (4) रंगमंच प्रबंधक



7. जब राम ने लड़के को नहीं पहचाना तो उसे कैसा लगा ? वह -

(1) क्रोधित हुआ

(4) उत्तेजित हुआ

(3) ऊब गया

(4) निराश हुआ

8. “मेघनाद-वध” क्या है ?

(1) एक खेल

(2) एक नाटक

(3) एक क्रिया-कलाप

(4) रंगमंच

एक समय की बात है, बोंमदिला की तराई में दो भाई रहते थे । वे बड़ी सादी, ईमानदारी की जिन्दगी जीते थे । सुबह होते ही दोनों भाई जीविकोपार्जन के लिये छोटे-छोटे काम की तलाश में निकल जाते ।

कड़ाके की सर्दी पड़ रही थी । बीमार होने के कारण बड़ा भाई चिनचिन काम पर नहीं जा सकता था । खराब मौसम में चिनचक काम की तलाश में निकला । शहर के पूर्वी भाग में किसी व्यापारी के आलीशान मकान में उसने शादी की तैयारियाँ होती देखी । वहीं उसने मजदूरी की प्रार्थना की ।

वहाँ पर पानी सहज उपलब्ध नहीं था । उसे दूर के झरने से पानी लाने का काम सौंपा गया । कड़कड़ाती सर्दी में चिनचक दिन भर मेहनत और लगन से पानी भरता रहा । व्यापारी उसकी ईमानदारी और भोलेपन से बहुत प्रभावित हुआ और उसने उसे अपने कालीन बनाने के कारखाने में एक अच्छी नौकरी पर लगा दिया । बाद में उसके भाई को भी काम दिया गया ।

9. इस गद्यांश में लेखक क्या कहना चाहता है ?

- (1) गरीब लोग मेहनत से काम करते हैं ।
- (2) व्यापारी प्रसन्न होते हैं तो अच्छा इनाम देते हैं ।
- (3) ईमानदारी और मेहनत से काम करने का गान मिलता है ।
- (4) मौसम अच्छा हो या खराब, काम करते रहना चाहिए ।

10. गद्यांश पढ़ने से लगता है कि बोंमदिला में रहने वाले ये भाई-

- (1) शहर में रहते थे ।
- (2) छोटी आयु के थे ।
- (3) अशिक्षित थे ।
- (4) गरीब थे ।

11. चिनचिन किसका नाम है ?

- ✓(1) बड़े भाई का
- (2) छोटे भाई का
- (3) व्यापारी का
- (4) लेखक का

12. काम की तलाश में चिनचक अकेला क्यों निकला ?

- (1) वह अकेले ही जाता था ।
- ✓(2) उसका भाई बीमार था ।
- (3) दो आदमियों को एक साथ काम नहीं मिलता था ।
- (4) वह अपने भाई से अधिक मेहनती था ।

13. व्यापारी चिनचक से इतना प्रसन्न क्यों हुआ ?

- (1) सर्दी में और कोई काम करने वाला न था ।
- ✓(2) उसे पानी की बड़ी जरूरत थी ।
- (3) चिनचक ने बड़ी मेहनत से काम किया था ।
- (4) चिनचक बड़ा भला नौजवान था ।

14. चिनचक को क्या इनाम मिला ?

- (1) उसका भाई ठीक हो गया
- (2) बहुत सा खाना और पैसा
- (3) अच्छा काम करने का संतोष
- ✓(4) एक अच्छी नौकरी

क्या तुम मुझे जानते हो ? मैं पानी हूँ । मेरा कोई रंग या गन्ध नहीं है । आकार भी नहीं है । मैं अपने पात्र का ही आकार धारण कर लेता हूँ ।

तुम मुझे तीन रूपों में देखते हो । पर्वतों की ऊँचाइयों पर या बहुत ठंडी जगहों पर मैं एक दम कड़ा हो जाता हूँ और पत्थर की तरह मजबूत । तब तुम मुझे बर्फ के रूप में देखते हो । जब गर्मी मुझे छूती है तो मैं पिघलने लगता हूँ । और मेरा रूप होता है द्रव । तब मैं पहाड़ियों के नीचे बहता हूँ किसी नाले या झरने की तरह । प्रकृति के मधुर स्वर गुनगुनाता मैं आगे बढ़ता हूँ । अन्ततः मैं समुद्र या झील में मिल जाता हूँ । इस रूप में मैं तुम्हें झील, तालाब और कुंओं में भी मिलता हूँ । बहुत गर्मी में मैं वाष्प बनकर ऊपर की ओर उड़ जाता हूँ ।

मैं जीवन-रस हूँ और मेरे बिना मनुष्य, पशु-पक्षी, पेड़-पौधे कोई भी जीवित नहीं रह सकते ।

15. पानी को जीवन -रस क्यों कहा गया है ?

- (1) पानी सब को अच्छा लगता है ।
- ✓ (2) पानी के बिना जीवन हो ही नहीं सकता ।
- (3) कारखाने पानी के बिना नहीं चल सकते ।
- (4) पानी हम रोज पीते हैं ।

16. बहुत ठंडी जगहों में पानी किस रूप में दिखाई देता है ?

- (1) झरना
- (2) ओस
- ✓ (3) बर्फ
- (4) बादल

17. पहले वाक्य में "मुझे"का प्रयोग किसके लिए हुआ है ?

- (1) कवि
- ✓ (2) पानी
- (3) बादल
- (4) पढ़ने वाला

18. "प्रकृति के मधुर स्वर गुनगुनाता ..... ." से किस ओर संकेत है ?

- (1) किसी के गाने की आवाज
- (2) पक्षियों का चहचहाना
- (3) कुएं से पानी निकालने की आवाज
- (4) पानी बहने की आवाज

19. ऊपर के अनुच्छेद में पानी के कौन से रूप दिए गए हैं ?

- (1) नदी, नाले और तालाब
- (2) पहाड़, नदी और समुद्र
- ✓ (3) बर्फ, पानी और भाप
- (4) द्रव, चट्टान और बादल

20. पहाड़ों से बहता पानी कहाँ जाता है ?

- (1) कुओ और तालाबों में
- (2) समुद्र या झील में
- (3) बादल बनकर उड़ जाता है ।
- (4) बिजली बनाने के काम आता है ।

21. "पानी का कोई आकार नहीं है" से क्या तात्पर्य है?

- ✓ (1) इसकी कोई निश्चित लम्बाई, चौड़ाई या रूप नहीं है ।
- (2) पानी बहता रहता है ।
- (3) पानी कई रूप धारण कर लेता है ।
- (4) पानी को पकड़ा नहीं जा सकता ।

हवा और पानी के बाद जीवन के लिये सबसे आवश्यक वस्तु है- भोजन । प्राचीन काल में मनुष्य फल और कन्द-मूल खाकर और नदियों का पानी पीकर जीता था । जब प्रकृति से स्वतः प्राप्त खाना कम पड़ने लगा, उसने खेती-बाड़ी आरम्भ की । जन्म ही मनुष्य को समझ में आ गया कि नदियों के किनारों की उपजाऊ भूमि खेती के लिए सबसे उपयुक्त है और वह नदियों के किनारों पर बसने लगा । इस तरह कृषि-प्रधान सभ्यता का विकास हुआ । इतिहास बताता है कि सारी प्राचीन सभ्यताएँ नदियों के किनारों पर ही पाली फूली ।

22. कृषि के लिये सबसे अच्छी जगहें कौन सी, पाई गई ?

- ✓ (1) नदी का किनारा
- (2) जंगल
- (3) पहाड़ों पर की भूमि
- (4) समुद्र तट

23. जीवन के लिये सबसे आवश्यक क्या है ?

- (1) खाना और घर
- (2) हवा, पानी और खाना
- (3) खाना और कपड़ा
- ✓ (4) खाना, कपड़ा और मकान

24. पहले पहल मनुष्य ने खेती क्यों की?

- (1) उस के पास उपजाऊ भूमि थी ।
- ✓ (2) प्रकृति से प्राप्त खाना कम पड़ने लगा था ।
- (3) पृथ्वी पर जलवायु बदलने लगी थी ।
- (4) अच्छे बीज उपलब्ध थे ।

25. प्राचीन सभ्यताएँ कहाँ फली फूली?

- (1) पहाड़ी इलाकों में
- (2) समुद्र तट के पास
- (3) ऐसी जगहों पर जहाँ कोई नहीं रहता था
- (4) नदियों के किनारे

26. अपने आप पैदा होने वाले खाने के काम पड़ने का क्या कारण हो सकता है?

- (1) जनसंख्या बराबर बढ़ती जा रही थी ।
- (2) मिट्टी कम उपजाऊ हो गई थी ।
- (3) वर्षा कम होने लगी थी ।
- (4) खेती पर कम ध्यान दिया जा रहा था ।

27. प्राचीन काल में मनुष्य क्या खाता था?

- (1) दूध और दही
- (2) अंडे और मांस
- ✓(3) फल और पौधों की जड़ें
- (4) चावल और अन्य अनाज

28. "प्राचीन सभ्यताएँ नदियों के किनारों पर ही फली फूली " इस कथन से तुम क्या समझते हो?

- (1) सभ्यताओं के विकास के लिए पानी अति आवश्यक था ।
- (2) नदियों के आस-पास के स्थान रेतीले होते थे ।
- (3) अधिकतर लोग पानी के आस-पास रहते थे ।
- (4) पुराने लोग कुओं से नदियाँ अधिक पसन्द करते थे ।

एक दिन स्कूल में अकगणित के कुछ प्रश्न घर पर हल करने के लिए दिए गये। गोपाल कृष्ण उनमें से एक प्रश्न हल न कर सका। वह एक दूसरे विद्यार्थी के घर गया और उसकी सहायता से उस प्रश्न को भी हल कर लिया। स्कूल में जब शिक्षक ने सब लड़कों की कापियां देखीं तो गोपाल कृष्ण के सभी प्रश्न सही हल किए हुए थे। यह देखकर शिक्षक उससे बहुत प्रसन्न हुए और उसको इनाम देने लगे। गोपाल कृष्ण ने इनाम नहीं लिया, इसके विपरीत वह रोने लगा। शिक्षक ने रोने का कारण पूछा। बालक गोपाल ने हाथ जोड़कर शिक्षक से कहा- “मैंने सारे प्रश्न अपने आप हल नहीं किये। मैंने एक प्रश्न अपने मित्र की सहायता से किया है.. ... ..।  
..... ।  
बालक की इस ईमानदारी पर शिक्षक ने कहा “अब मैं यह इनाम तुम्हारी सच्चाई पर देता हूं।” बाद में गोपाल कृष्ण गोखले भारत के प्रसिद्ध नेता बने।

29. गोपाल कृष्ण दूसरे विद्यार्थी के पास किसलिए गए थे ?

- (1) हल किए प्रश्न दिखाने के लिए।
- (2) एक प्रश्न को हल करने में सहायता पाने के लिए।
- (3) ताकि मित्र उसकी कापी से देखकर काम पूरा कर ले।
- (4) ताकि वे उसके काम की नकल कर ले।

30. पहले अध्यापक गोखले को इनाम क्यों देना चाहते थे ?

- (1) उसने अध्यापक की आज्ञा का पालन किया था।
- (2) उसकी कापी बड़ी साफ-सुथरी थी।
- (3) उसने सारे प्रश्न सही हल किए हुए दिखाए थे।
- (4) वह उनका प्रिय शिष्य था।



31. गोपाल कृष्ण ने इनाम क्यों नहीं लिया? उनका विचार था कि-

- ✓(1) वे इसके हकदार नहीं हैं।
- (2) इतनी छोटी सी बात के लिए इनाम नहीं मिलना चाहिए।
- (3) उनके हल किये प्रश्नों में कुछ गलत भी हो सकते हैं।
- (4) उन्हें और अधिक काम करना चाहिए।

32. गोपाल कृष्ण रोने क्यों लगे ?

- (1) उन्हें इनाम अच्छा नहीं लगा।
- (2) उन्हें लगा जैसे उन्होंने अध्यापक को धोखा दिया है।
- ✓(3) उन्हें डर था कि उनका सहपाठी अध्यापक को सच्ची बात बता देगा।
- (4) वह सजा मिलने से डर रहे थे।

33. गोपाल कृष्ण के रोने से अध्यापक को कैसा लगा होगा ?

- (1) गुस्सा आया होगा।
- ✓(2) बुरा लगा होगा।
- (3) दुख हुआ होगा।
- (4) हैरानी हुई होगी।

34. अनुच्छेद के अन्त में एक वाक्य का स्थान खाली छोड़ा गया है, उसे निम्नलिखित किस वाक्य से पूरा करना ठीक है ?

- ✓(1) मैं इनाम पाने का अधिकारी नहीं हूँ।
- (2) मुझे सब प्रश्न ठीक हल करने नहीं आते थे।
- (3) मुझे दण्ड दिया जाये।
- (4) मुझे अंक गणित ठीक से नहीं आता।

35. अन्तिम वाक्य “बाद में गोपाल कृष्ण गोखले भारत के प्रसिद्ध नेता हुए” से लेखक क्या कहना चाहता है ?

- (1) गोखले गणित में शुरू से ही बड़ी दिलचस्पी लेते थे ।
- (2) वे बचपन से ही नेताओं की तरह व्यवहार करते थे ।
- (3) लोग गोखले से पहले से ही प्रभावित थे ।
- (4) गोखले के गुण बचपन से ही दिख रहे थे ।

36. इस गद्यांश का सबसे अच्छा शीर्षक क्या हो सकता है ?

- (1) सदा सच बोलो
- (2) गोपालकृष्ण गोखले
- (3) सत्यवादी बालक
- (4) सच्चाई का फल

बचपन से ही बापू के मन में छुआछूत के प्रति विद्रोह था। उनके घर मल उठाने तथा आंगन ब्रुहारने के लिए एक छोटा सा भंगी लड़का ऊका आया करता था। मोहन दास को आदेश था कि वह ऊका को न छुए। यदि कही मोहन दास उसे गलती से छू बैठता तो उसे शुद्ध होने के लिए पुन विधिवत् नहाना पड़ता।

मोहनदास एक बड़ा कर्तव्यनिष्ठ, स्नेही और आज्ञाकारी बालक था। वह ऐसा कोई काम नहीं करता था जिससे उसके माँ-बाप दुखी हो। लेकिन ऊका की बात पर वह अपने माँ-बाप से विशेषकर अपनी मा से पूर्णतया असहमत था। इस विषय में उन्होंने लिखा है, मैंने अपनी मा से कहा कि ऊका के स्पर्श को पाप मानना कतई ठीक नहीं। यदि प्रभु सबमे है तो वह भला ऊका मे क्यों नहीं है।

37. इस गद्यांश में-

(1) ऊका एक लड़के का नाम है।

(2) ऊका का अर्थ है - भगी

(3) ऊका एक घरेलू नौकर है।

(4) ऊका का अर्थ है-लड़का

38. मोहनदास को ऊका को न छूने का आदेश किसने दिया था ?

(1) परिवार के पुरोहित ने

(2) गाव के मुखिया ने

(3) बापू ने

(4) उसके माता-पिता ने

39. यदि मोहनदास ऊका को छू लेते थे तो -

- (1) उन्हें दण्ड दिया जाता था।
- (2) मां से डाँट पड़ती थी।
- ✓ (3) शुद्ध होने के लिए नहाना पड़ता था।
- (4) घर से बाहर भेज दिया जाता था।

40. ऊका को छूने से मोहनदास को क्यों मना किया गया था ?

- (1) ऊका ठीक कपड़े नहीं पहनता था
- (2) वह परिवार का सदस्य नहीं था
- (3) वह अच्छा लड़का नहीं था
- ✓ (4) वह भंगी था

41. बचपन से ही मोहनदास -

- (1) अपने माता-पिता की बात बिल्कुल नहीं सुनता था।
- ✓ (2) छुआछूत को नहीं मानता था।
- (3) ऊका के साथ खेलता रहता था।
- (4) अपनी मां से बहस करता था।

42. इस गद्यांश में "प्रभु" शब्द का प्रयोग किसके लिए हुआ है ?

- (1) नेता
- (2) राजा
- ✓ (3) भगवान
- (4) गांव-प्रधान

43. "यदि प्रभु सब मे है तो वह भला ऊका में क्यों नहीं है ?" इससे क्या अभिप्राय है ?

- (1) ऊका दूसरे बच्चों के जैसा ही है ।
- (2) ऊका मे भगवान नहीं है ।
- (3) ऊका भगवान के समान है ।
- (4) ऊका एक भला लड़का है ।

44. इस गद्यांश में "बापू" किसके लिए प्रयुक्त हुआ है ?

- (1) मोहनदास
- (2) मोहनदास के पिता
- (3) ऊका के पिता
- (4) ऊका



# जिला प्राथमिक शिक्षा कार्यक्रम (जि.प्रा.शि.प.)

आधारभूत मूल्यांकन अध्ययन

**कक्षा 5 परीक्षण - गणित**

Test Code	<input type="text" value="M"/>	1
State Code	<input type="text"/>	2
District Code	<input type="text"/> <input type="text"/>	3
Block Code	<input type="text"/>	5
School ID	<input type="text"/> <input type="text"/>	6
Student ID	<input type="text"/> <input type="text"/>	8
Test Status Code	<input type="text"/>	10
C - Complete A - Absent T - Terminated		

निद्यार्थी का नाम \_\_\_\_\_

पिता/संरक्षक का नाम \_\_\_\_\_

	घ	मि	
परीक्षण प्रारम्भिक समय	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	11
परीक्षण समाप्त समय	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	15
(मानक घण्टों का प्रयोग करें)			



अध्यापक शिक्षा व विशेष शिक्षा विभाग  
राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्

श्री अरविन्द मार्ग, नई दिल्ली-110 016

1993-94





## निर्देश

इस परीक्षण में कुछ प्रश्न हैं। प्रत्येक प्रश्न के नीचे चार सम्भावित उत्तर भी दिए हुए हैं। इनमें से सही उत्तर ढूँढकर उसके क्रमांक पर घेरा लगाओ।

## उदाहरण के लिये

यदि एक पुस्तक की कीमत ५ रुपये है तो तीन पुस्तकों की कीमत क्या होगी ?

- (१) ८ रुपये
- (२) १५ रुपये
- (३) १० रुपये
- (४) ९ रुपये

दिए गए चार उत्तरों में से १५ रुपये सही उत्तर है जिसकी क्रमांक संख्या “(२)” पर घेरा खींचा गया है।

सभी प्रश्न करने हैं। यदि तुम्हें कोई प्रश्न नहीं आता तो उसे छोड़कर अगला प्रश्न करो और इस तरह करते चले जाओ। यदि तुम्हें “रफ” काम करना है तो प्रश्न के सामने बची जगह पर ही करो।

टी. ओ. ए. डम्मी कोड

१

०

१५ - ५६

१

२८९

+ ७४

+ ७६०९ का योग किसके बराबर है ?

(१) ७९६२

(२) ७९७२

(३) ७८७२

(४) ७८५२

२.

कौन सी संख्या सबसे बड़ी है ?

(१) २०५८

(२) २०८५

(३) २०८९

(४) २०९८

३.

एक किलोग्राम कितने ग्राम के बराबर है ?

(१) १०

(२) १००

(३) १,०००

(४) १०,०००

४. दो संख्याओं का अन्तर ४४ है। यदि छोटी संख्या ४३२ है तो बड़ी संख्या क्या होगी ?

- (१) ३८८
- (२) ३९८
- (३) ४६७
- (४) ४७६

५. धारिता किसमें मापी जाती है ?

- (१) मिलीलीटर
- (२) सेटीमीटर
- (३) ग्राम
- (४) इनमें से कोई नहीं

६. निम्न आकृति में कितने रेखाखंड हैं ?



- (१) ४
- (२) ६
- (३) ७
- (४) ८

७. संख्या ४८ के अभाज्य गुणनखण्ड क्या हैं ?

- (१)  $2 \times 2 \times 2 \times 2 \times 3$
- (२)  $2 \times 4 \times 2 \times 3$
- (३)  $6 \times 4 \times 3$
- (४)  $6 \times 4 \times 2$

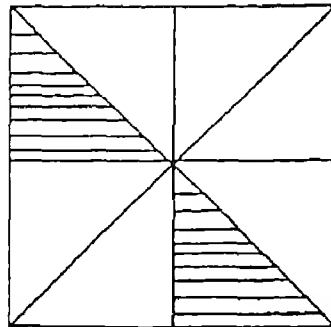
८

यदि ९ कॉपीयों की कीमत ४५ रु० है तो एक कॉपी की कीमत क्या होगी ?

- (१) ७ रु०
- (२) ६ रु०
- (३) ५ रु०
- (४) ४ रु०

९.

इस आकृति के छायांकित भाग को भिन्न में कैसे लिखा जाएगा ?



- (१)  $\frac{1}{4}$
- (२)  $\frac{1}{3}$
- (३)  $\frac{2}{3}$
- (४)  $\frac{3}{4}$

१०.

६ और ८ का लघुत्तम समापवर्त्य क्या है ?

- (१) २
- (२) १२
- (३) १४
- (४) २४

११. यदि एक संख्या दूसरी का गुणज है तो इन संख्याओं का लघुत्तम समापवर्त्य क्या होगा ?

- (१) दोनो मे से कोई नहीं
- (२) दोनो का गुणनफल
- (३) छोटी संख्या
- (४) बड़ी संख्या

१२. १५ मीटर फीते का दाम ३० रु० है। ३ मीटर फीते का दाम क्या होगा ?

- (१) २ रु०
- (२) ५ रु०
- (३) ६ रु०
- (४) १० रु०

१३. २०५ को रुपये तथा पैसे मे कैसे लिखेंगे ?

- (१) २ रुपये ५० पैसे
- (२) २ रुपये ५ पैसे
- (३) २० रुपये ५० पैसे
- (४) २० रुपये ५ पैसे

१४. १ घंटा ३५ मिनट मे कुल कितने मिनट होंगे ?

- (१) ६३५ मिनट
- (२) १३५ मिनट
- (३) १०५ मिनट
- (४) ९५ मिनट

१५

यदि चीनी की एक बोरी का दाम ५०० रु० हो तो ६ बोरियो का दाम मालूम करने के लिए तुम्हे क्या करना होगा ?

- (१) ५०० रु० को ६ से गुणा
- (२) ५०० रु० को ६ से भाग
- (३) ५०० रु० में ६ जमा
- (४) ५०० रु० में से ६ घटाना

१६

यदि ५४ को बीस बार जमा करना हो तो जल्दी और सही करने के लिए कौन-सा तरीका सबसे अच्छा है ?

- (१) ५४ और २० को जमा करना
- (२) ५४ को २० से गुणा करना
- (३) ५४ को १ से गुणा करना
- (४) राख्या को बार-बार जमा करना

१७

निम्नलिखित में से कौन सी भिन्न सरलतम रूप में है ?

- (१)  $\frac{१५}{२४}$
- (२)  $\frac{१०}{१६}$
- (३)  $\frac{५}{८}$
- (४)  $\frac{२०}{३०}$

१८. ४०६० ग्राम को किलोग्राम और ग्राम में कैसे लिखेंगे ?

- (१) ४० किलोग्राम ६० ग्राम
- (२) ४ किलोग्राम ६ ग्राम
- (३) ४ किलोग्राम ६० ग्राम
- (४) ४ किलोग्राम ६०० ग्राम

१९ किस समूह की चारो संख्याएँ ७ की गुणज हैं ?

- (१) १४, २३, ४९, ५६
- (२) ७, २१, ४२, ६५
- (३) २८, ३५, ४२, ६७
- (४) २१, २८, ६३, ७७

२० एक विद्यालय में २३७५ विद्यार्थी हैं। इनमें से १३४९ लड़के हैं। विद्यालय में कितनी लड़कियाँ हैं ?

- (१) १०२५
- (२) १०२६
- (३) १०३६
- (४) ३७२४

२१ १० ३० प्रातः के ४ घंटे बाद क्या समय होगा ?

- (१) २ ३० प्रातः
- (२) २.३० दोपहर
- (३) ६ ३० प्रातः
- (४) १४ ३० प्रातः

२२

नीचे दी गई भिन्न के जोड़ों में से कौन सा जोड़ा तुल्य भिन्नो का है ?

(१)  $\frac{1}{6}$  ,  $\frac{3}{2}$

(२)  $\frac{2}{6}$  ,  $\frac{4}{18}$

(३)  $\frac{3}{6}$  ,  $\frac{4}{12}$

(४)  $\frac{2}{6}$  ,  $\frac{4}{6}$

२३

७ x ० x ९ किसके बराबर है ?

(१) ०

(२) ७

(३) ९

(४) ६३

२४.

घण्टे की सुई ४ और ५ के बीच में है और मिनट की सुई १९ वे निशान पर है। घड़ी में कितने बजे हैं ?

(१) ५:३०

(२) ५ १९

(३) ४ ३०

(४) ४ १९

२५

एक त्रिभुज का परिमाण ४८ से०मी० है। यदि त्रिभुज की तीनो भुजाएँ बराबर हो तो प्रत्येक भुजा की लंबाई कितने से०मी० होगी ?

(१) १२ से०मी०

(२) १६ से०मी०

(३) २४ से०मी

(४) कुछ कहा नहीं जा सकता



२६

१० मीटर लम्बे कपड़े के टुकड़े में से  $3\frac{1}{4}$  मीटर कपड़ा एक सूट बनवाने के लिए ले लिया गया। बाकी कितना कपड़ा बचा ?

(१)  $6\frac{3}{8}$  मीटर

(२)  $7\frac{1}{8}$  मीटर

(३)  $7\frac{3}{8}$  मीटर

(४)  $13\frac{1}{8}$  मीटर

२७

मोहन ने बाढ़-पीड़ितों की सहायता के लिए २,००० रुपये दिए। आजाद ने उससे ३७५ रुपये कम दिए। दोनों ने कुल कितना रुपया बाढ़-सहायता कोष में दिया ?

(१) ६२५ रुपये

(२) २३७५ रुपये

(३) ३६२५ रुपये

(४) ४३७५ रुपये

२८

जिस संख्या का स्वयं और एक के अतिरिक्त और कोई गुणनखंड नहीं होता उसे क्या कहते हैं ?

(१) सम

(२) संयुक्त

(३) मिश्रित

(४) अभाज्य

२९ कौन सी विषम संख्या है ?

(१) २७,५३६

(२) ४६,८६७

(३) ७२,८६४

(४) २५,७९४

३० "१०" में से "८" का दशमलव रूप कौन सा है ?

(१) ०.०१

(२) ०.०८

(३) ०.८

(४) ०.१०

३१  $\frac{१}{२}$  से  $\frac{१}{३}$  कितना कम है ?

(१)  $\frac{१}{६}$

(२)  $\frac{१}{३}$

(३)  $\frac{१}{२}$

(४)  $\frac{५}{६}$

३२

किस संख्या में ८ का स्थानीय मान सबसे अधिक है ?

(१) १२७.८५०

(२) १४३९८०

(३) २७९००८

(४) ७३१५८९

३३

८९७५ में ७ का स्थानीय मान क्या है ?

(१)  $\frac{7}{100}$

(२)  $\frac{7}{10}$

(३) ७

(४) ७०

३४

किस क्रिया से “भिन्न” के मूल्य में कोई अन्तर नहीं पड़ता ?

(१) हर को किसी संख्या से गुणा करने पर

(२) अंश को किसी संख्या से गुणा करने पर

(३) हर और अंश दोनों को किसी एक ही संख्या से गुणा करने पर

(४) हर को किसी संख्या से भाग देने और अंश को उसी संख्या से गुणा करने पर

३५

नीचे दिए प्रश्नों को बिना हल किए अनुमान लगाइए कि भागफल किसमें सबसे अधिक होगा ?

(१)  $8 \overline{) 5376}$

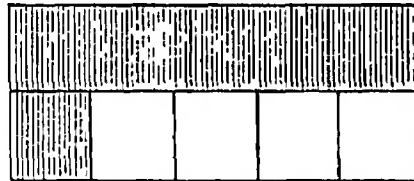
(२)  $12 \overline{) 5376}$

(३)  $18 \overline{) 5376}$

(४)  $16 \overline{) 5376}$

३६.

आकृति के छायांकित भाग को दशमलव में कैसे लिखा जाएगा ?



(१) ०.०४

(२) ०.०६

(३) ०.४

(४) ०.६

३७.

एक मोटर गाडी पहले घंटे में ४० कि०मी० ६५० मीटर चली । दूसरे घंटे में गाडी केवल ३० कि०मी० और ८०० मीटर चली । गाडी ने कुल कितना फासला तय किया ?

- (१) १० कि०मी १५० मीटर
- (२) ७० कि०मी ४५० मीटर
- (३) ७१ कि०मी ४५० मीटर
- (४) ७१ कि०मी १४५० मीटर

३८

नीचे हल किए हुए भाग के प्रश्न को ध्यान से देखो । भाज्य को क्या किया जाए कि वह २३ से पूरी तरह विभाजित हो जाए ?

$$\begin{array}{r} 284 \\ 23 \overline{) 5689} \\ \underline{46} \phantom{9} \\ 108 \phantom{9} \\ \underline{92} \phantom{9} \\ 129 \phantom{9} \\ \underline{115} \phantom{9} \\ 14 \end{array}$$

- (१) १४ जोड़ा जाए
- (२) १४ घटाया जाए
- (३) २३ जोड़ा जाए
- (४) २३ घटाया जाए

नीचे दो संख्याओं के अभाज्य गुणनखंड दिए गए हैं

पहली संख्या  $2 \times 2 \times 5$  दूसरी संख्या  $3 \times 5 \times 5$

इनका लघुत्तम समापवर्त्य क्या है ?

(१)  $5 = 5$

(२)  $2 \times 3 \times 5 \times 5 = 150$

(३)  $2 \times 2 \times 3 \times 5 \times 5 = 300$

(४)  $2 \times 2 \times 3 \times 5 \times 5 \times 5 = 1500$

दशमलव का उपयोग करते हुए ५ मीटर ८० सेंटीमीटर को मीटर में कैसे लिखते हैं ?

(१) ०.०५८ मीटर

(२) ५.०८ मीटर

(३) ५.८० मीटर

(४) ~~५८.००~~ मीटर

